

Aviation News

MCGRAW-HILL PUBLISHING COMPANY, INC.

JULY 30, 1945



AAF Reveals Facts About the B-32: The Army Air Forces has finally taken the wraps off the B-32, Consolidated Vultee's heavy bombardment plane. The use to which this newest addition to the U. S. air fleet will be put has not been disclosed.

Research Proposals Seen Vital To Industry Future
Contemplated Federal agency to oversee research is main point of interest.....Page 7

Airlines See Chaos in ODT Plane Pool Proposal
Priorities system cited as capable of filling same needs in redeployment program.....Page 43

Shake-Up of CAA 'Old Guard' Seen General Demand
Spokesmen charge elder employees with maintaining outdated philosophy.....Page 15

Insurance Policies Revamped For Global Air Travel
New protection forms designed for both domestic and international trips.....Page 52



THERE'S A NEW STANDARD IN AIR TRANSPORTATION!

Lockheed Constellation

Lockheed Aircraft Corporation, Burbank, California  Flies ahead in the service of flight



THE AVIATION NEWS

Washington Observer

TERMINATION REPORT—Report of the Office of Contract Termination is at the printers and should be out soon. Terminations resulting from V-E Day are hardly reflected since the report goes only through June.

TOUGHER TERMINATIONS—Termination of aircraft contracts is more common than for any other war equipment. The industry's largest and most money is involved; many companies and suppliers are involved; many contractors and suppliers are involved; the industry's rapid expansion. In addition, cost plus fixed fee contracts are more difficult to settle than fixed price contracts and the aircraft industry has more of the former type.

SURPLUS WARPLANES—It is now known to be the belief of high Surplus Property Board officials that all surplus combat planes will have to be scrapped, except those to be used for educational and other non-fight purposes. Prime reason is the feeling that jet propulsion developments shortly will make obsolete most current combat planes. Before any definite move is made toward scrapping, however, there is likely to be an attempt made to sell some combat types, mostly to insure against criticisms from Congress and other quarters. S.P.B. officials believe the dollar return will be so low in comparison to original cost that objection to scrapping will be minimized.

NO SURPRISE—A second look at the appointment of W. Bissell Brynnerup, as chairman of S.P.B., makes it obvious that President Truman's recommendation for a single administrator should not have been surprising. Although quoted as saying, "No one resigns to the President," when asked if he took the job on the condition he be made sole boss, Brynnerup is believed to have known in advance of the President's recommendation.

New photo of the RAF Meteor twin-engine jet fighter in flight



CAA DECENTRALIZATION—Although agreeing in principle the CAA decentralization effected in the latest reorganization, some circles see in it a "kick-passing" maneuver. Already there have been instances of complaints regarding field districts being returned with the admissions that Washington only sets policy, is not responsible for the actions of field officials. The Air Line Pilots Association is concerned over the decentralization because airlines, passing through two or more CAA regions, are thus subject to possible conflicting rulings of "autonomous" superiors. ALPA would like a centralizer in Washington to reconcile such situations.

INTEGRATION—There is a likelihood that a new organization will be formed to lead the airlines' fight against the integration proposal expected to grow out of the Senate Committee on Foreign Commerce. Committee's transportation director, Captain George W. Patterson, of United Air Lines, has looked upon integration not unfavorably in the past. That fact might make the Air Transport Association rule-slap the name, leaving the airlines opposed to the scheme to create their own spokesman, just as they did on the international policy issue.

FEW JETS IN EUROPE—Air Corps procurement is being criticized by members of the Senate War Investigating Committee for regarded slowness in getting jet-propelled planes into the European theater. The committee commented that by early spring the Germans had large numbers of jet planes in the air and were using them with considerable effectiveness. Members noted, they said, that only two American jet planes had found their way to the ETO, despite the fact that men in the field for over a year had sent warnings the Germans were preparing for a major jet plane offensive.



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CONTENTS

	PAGE
Washington Observer	1
Headline News Section	1
Private Flying	1
U.S. Navy	1
Commercial	1
International	1
Advertisers Index	1
Advertisers Index	2
Advertisers Index	3
Advertisers Index	4
Advertisers Index	5
Advertisers Index	6
Advertisers Index	7
Advertisers Index	8
Advertisers Index	9
Advertisers Index	10
Advertisers Index	11
Advertisers Index	12
Advertisers Index	13
Advertisers Index	14
Advertisers Index	15
Advertisers Index	16
Advertisers Index	17
Advertisers Index	18
Advertisers Index	19
Advertisers Index	20
Advertisers Index	21
Advertisers Index	22
Advertisers Index	23
Advertisers Index	24
Advertisers Index	25
Advertisers Index	26
Advertisers Index	27
Advertisers Index	28
Advertisers Index	29
Advertisers Index	30
Advertisers Index	31
Advertisers Index	32
Advertisers Index	33
Advertisers Index	34
Advertisers Index	35
Advertisers Index	36
Advertisers Index	37
Advertisers Index	38
Advertisers Index	39
Advertisers Index	40
Advertisers Index	41
Advertisers Index	42
Advertisers Index	43
Advertisers Index	44
Advertisers Index	45
Advertisers Index	46
Advertisers Index	47
Advertisers Index	48
Advertisers Index	49
Advertisers Index	50
Advertisers Index	51
Advertisers Index	52
Advertisers Index	53
Advertisers Index	54
Advertisers Index	55
Advertisers Index	56
Advertisers Index	57
Advertisers Index	58
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Advertisers Index	60
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Advertisers Index	67
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Advertisers Index	89
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Advertisers Index	91
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Advertisers Index	98
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Advertisers Index	100
Advertisers Index	101
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Advertisers Index	103
Advertisers Index	104
Advertisers Index	105
Advertisers Index	106
Advertisers Index	107
Advertisers Index	108
Advertisers Index	109
Advertisers Index	110
Advertisers Index	111
Advertisers Index	112
Advertisers Index	113
Advertisers Index	114
Advertisers Index	115
Advertisers Index	116
Advertisers Index	117
Advertisers Index	118
Advertisers Index	119
Advertisers Index	120
Advertisers Index	121
Advertisers Index	122
Advertisers Index	123
Advertisers Index	124
Advertisers Index	125
Advertisers Index	126
Advertisers Index	127
Advertisers Index	128
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Advertisers Index	133
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Advertisers Index	137
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Advertisers Index	140
Advertisers Index	141
Advertisers Index	142
Advertisers Index	143
Advertisers Index	144
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Advertisers Index	147
Advertisers Index	148
Advertisers Index	149
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Advertisers Index	154
Advertisers Index	155
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Advertisers Index	157
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Advertisers Index	165
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Advertisers Index	225
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Advertisers Index	229
Advertisers Index	230
Advertisers Index	231
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Advertisers Index	476
Advertisers Index	477
Advertisers Index	478
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Advertisers Index	480
Advertisers Index	481
Advertisers Index	482
Advertisers Index	483
Advertisers Index	484
Advertisers Index	485
Advertisers Index	486
Advertisers Index	487
Advertisers Index	488
Advertisers Index	489
Advertisers Index	490
Advertisers Index	491
Advertisers Index	492
Advertisers Index	493
Advertisers Index	494
Advertisers Index	495
Advertisers Index	496
Advertisers Index	497
Advertisers Index	498
Advertisers Index	499
Advertisers Index	500

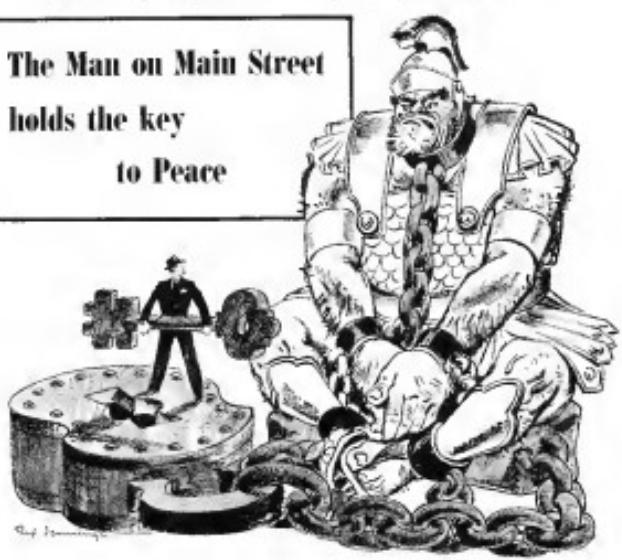
Heavy setbacks in Army and Navy fighter development have been suffered by the aircraft industry in recent months. The most serious setback was the cancellation of the North Pacific route (in optimistic terms) of the Pan American Airways' "Clipper" service. This was followed by the cancellation of the Pan American's "China Clipper" service. The cancellation of the Pan American's "China Clipper" service was due to the fact that the Pan American's "China Clipper" service was not able to compete with the Japanese "China Clipper" service. The cancellation of the Pan American's "China Clipper" service was due to the fact that the Pan American's "China Clipper" service was not able to compete with the Japanese "China Clipper" service.

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The Man on Main Street holds the key to Peace



JOHN Q. CITIZEN, the Man on Main Street, has a vital stake in postwar aviation. Aviation will provide him with a better job, more opportunities, he in turn can influence the growth and development of aviation in his lively interest as an ally. For National Security, the idea of Permanent Peace Through Air Power is one that can contribute to achievement only through public support.

America must also stimulate building out the wing of the future by personal support of organizations which are trying to keep America active and

strong in the air. As the Germans learned, when their war was done, Air Power played a major role in the Nazi defeat—and Air Power is a strong security against future aggression. John Q. Citizen has other tools for peace at hand. His interest in private flying, bus transportation, local air terminals, air strips and air parks; his support of air shows and exhibitions; literature and publications; books, education and research; his participation in aviation organizations... all these are specific ways in which he will help make peace through Air

Power a reality for this country. And Bell Aircraft makes a pledge of continuing cooperation. The company's statement of its research and scientific development program which has already brought into being so many inventions—the Autocolor and Kingradio, the "canopy on wings";... America's first jet propelled plane... the first helicopter with heli-rotor, engineered stability... anticipating the kind of aerautical pioneering which looks to the future—in the skies.

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July 30, 1945

VOLUME 6 • NUMBER 1

Congressional Research Proposals Seen Vital To Air Industry Future

Critical procurement program immediately following war's end believed racing partially on effect of any experimentation program rescinded; contemplated Federal agency to oversee research is main point of interest.

With a record of having produced faster than nearly any other industry on the basis of constant, ever-widening research, the aircraft industry last week watched with growing interest, tinged with concern, the several Congressional proposals for a Federal agency to oversee research.

Biggest question in industry circles was the effect enactment of any of the proposed bills would have on post-war military procurement; specifically, procurement in the critical period immediately following the war with Japan. Most studied opinion is that in that period the industry will need heavy experimental and developmental contracts.

Large Fund—The contemplated research agency would require appropriations ranging from \$25,000,000 annually, up. The industry wonders if a post-war, economy-minded Congress would consent to large military appropriations for research and development on top of the funds it would have to allocate for the overall research or-
ganization.

Thus, with a reservation for potentially unfavorable trends, the aircraft industry favors the measures now being proposed for facilitating certain research after the war. In essence, these are:

►Research Board for National Security, set up in the National Academy of Sciences at the request of the Secretaries of War and Navy. It will carry on in the interim period between the dissolution of the Office of Scientific Research and Development and the establishment of a new department.

►S. 1383, a bill introduced by Sen. Warren G. Magnuson (D-Wash.) to authorize a National Research Foundation—a companion bill HR

search in the interest of security.

Man's difference between the programs of Magnuson and the other three Senators, besides the name of the organization, is in the approach. A memorandum of the March 8 administration of the Military Affairs Committee, headed by Magnuson, for months has been studying the German industrial potential, and now concludes (1) the U.S. was dependent upon German scientific leadership, (2) this was largely due to patent systems, licensing, and control arrangements.

►NACA Safe—The National Advisory Committee for Aeronautics would be unchanged by the passage of either of the bills. In fact, NACA was used as model for the agency suggested in the OGRD report. To the industry, this is a mixed blessing.

On the one hand, NACA has done some notable work, on either its failure or its success, industry tends to be the responsible—possibly because of military restrictions—has resulted in costly duplication of NACA tasks.

In addition, some industry quarters encourage NACA for doing too much development work, and



IN FOR OVERHAUL

A U.S. Navy Martin Mariner is pictured being hauled aboard a semi-gondola trailer for maintenance after a long patrol flight. Standard completely overhauling the big plane, the trailers have recreational facilities for the pilots and crews who fly the patrol boats.

AVIATION NEWS • July 30, 1945

HEADLINE NEWS—7

not enough basic research—other situations that can largely be charged to the military as NACA performs assignments for the Army and Navy. Research for research's sake is nothing, the industry points out. The application of research to commercial and military needs is what counts. And that is a field in which industry should, and in the past has, functioned successfully.

Airport Parley Postponed

The Joint Airport Users Conference, sponsored by the National Aeroplane Trade Association, has been postponed until August 28 and 29. Originally scheduled to be held last week, the conference was put off to permit additional time in which to expand the agenda. NATA said The forthcoming meeting will be the third for the conference, which was organized last summer.

AAF Release Data On The B-32

Discussions this week of first data and photographs by the Army Air Forces of its new heavy, long-range bomber, the Consolidated Model B-32—originally called the Dominator—disclosed that its characteristics coincide with requirements of the South Pacific air way rather than those in the Japanese main island areas being hit by the B-29.

Exact role of the B-32 has been in doubt for months, even in high military circles, and the number which will be sent into combat is still undecided.

Powerplant—The high-wing, long-range bomber, with a low-drag wing, has two four-blade, 18-cylinder, Wright Cyclone R-3350 engines, each producing an excess of 3,200-hp, and even over 4,000-hp at sustained take-off power.

Later models, all of which are being built at Fort Worth, will have an improved R-3350.

The two inboard powerplants are equipped with reversible Curtiss electric propellers, tangent to very pointed nose gear, which makes possible to land in less than 1,000-ft., with 116,000-lb. gross, on the same runways used by *Fortresses* and *Liberators*.

Firepower—The tricycle landing gear is fully retractable, dual 24-inch wheels retracting into the inboard nacelles. Firepower is described as comparable to the B-29 but conventional; rubber

Helium Filled Tires Save Airliner Weight

Technicians of Goodyear Tire and Rubber Co have reported the successful inflation of large airplane tires with helium instead of air, with consequent important weight savings.

They said it takes 92 pounds of air to inflate a 110 inch tire, but only 13 pounds of helium are required for the same tire. Weight thus saved on each tire is 79 pounds, or 155 for the two main wheels of a plane, plus the weight saved by using helium inflation for the nose wheel.

Cutty Weights—Goodyear officials estimate that each pound of weight saved in commercial transport operation is worth \$300 per pound, annually, in added passenger and freight revenue.

Heretofore, the rapid diffusion of helium through rubber has been

an obstacle in the use of this gas for tire inflation. Introduction of aeroelastic rubber seal tubes has overcome this problem.

AVIATION CALENDAR

- July 20—Transonic Compressors, International Air Transport Association Meeting, Hotel Astor, Mid-Prairie Express, Madison, Wisconsin; A. B. M. Odell, Milwaukee, Ohio, chairman; John E. Ladd, Milwaukee, Wisconsin; Robert Falzon Head, Detroit.
- Aug. 1—Mid-Monthly Aircraft Standards Meeting, Wright-Patterson Field, Dayton, Ohio.
- Sept. 1—Annual Meeting, American Helicopter Society, Hotel Stevens, New York City.
- Sept. 10—Meeting, International Air Transport Association, Hotel Astor, New York City.
- Sept. 11—Annual Meeting, International Airlines, Hotel Lido, Los Angeles.
- Sept. 12—Annual Meeting, International Airlines, Hotel Lido, Los Angeles.
- Sept. 13—Annual Meeting, International Airlines, Hotel Lido, Los Angeles.
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Revealing Views of the AAF's B-32



Newest Mustang Ready For Japs

More power, speed, range, and enough ballast despite 700-lb. saving in weight.

North American Aviation has a new and spicier Mustang, 700 pounds lighter than its predecessor model.

While achieving greater speed, maneuverability, range and powering general performance in the new model, engineers strengthened the new Mustang, the P-51H, some 16 percent throughout, despite the reduction in its overall weight. The plane has a combat range of more than 2,000 miles, and a speed of more than 460 mph. **Power Plant**—Generating better than 2,000 horsepower, the power plant section is developed around a Packard-built Rolls-Royce V-12 engine utilizing a fuel injection pump and a new fuel-injection system and a new two-stage compressor. The engine is built by Aeromotors, Inc., which designed for higher engine horsepower.

The added boost gives the Mustang efficient operation up to 43,000 feet, and a rate of climb 26 percent faster than the earlier model. The engine mount is 40 percent lighter. Much of the weight savings was accomplished in this section.

Lighter-weight alloys, material-saving installations and advanced aerodynamic features account for further reductions. Electrical systems are grouped centrally to reduce wiring in the new Mustang.

'Copter Liner'

Bendix the Navy model of the Sikorsky PV helicopter, announced last week (Aviation News, July 23) by the P-T Engineering Forum, Inc., Sikorsky still wants to continue to produce a commercial version of the 45-ft. 10-in. Production models of the little PV-2 one-place helicopter and a two-place version will follow soon.

PV is establishing a sales and service organization to handle commercial distribution of these models, and other more advanced designs now in various preliminary stages. The company expects it will offer a complete line of helicopters for civil-use markets in this country.

and the flying control panel has been simplified.

With an eye on pilot's problems and comfort for long missions North American engineers set up an improved seat installation, better headrest, adjustable armrests and other accommodations designed to reduce fatigue.

Firepower Retained—Impressions incorporated in the P-51H were attained without giving up any of the Mustang's firepower. Firing to carry 10 rockets under the wings are fastened together with cables to carry bombs weighing up to 1,000 pounds, or extra fuel tanks are mounted on the ship. The Mustang retains six .50 caliber machine guns with increased re-

liability, and simplification of service and maintenance.

The new Mustang was built by North American, in cooperation with the Air Technical Service Command in answer to the AAF's demand for a fighter with greater range, more speed and higher ceiling for Pacific operations.

Three Key Men Shifted In ATSC

Continuing reorganization of Air Technical Service Command Headquarters at Wright Field, Dayton, Ohio, under Maj. Gen. Howard J. Knerr, commanding general, has resulted in transfers of three key men, two of them to overseas assignments, and other shifts in the organization.

Maj. Gen. Kenneth R. Wolfe, chief of engineering and procurement, and Maj. Gen. Valter Bertrandus, chief of maintenance, have been transferred to overseas assignments while Col. Turner A. Sims, chief of administration, has been transferred to Washington. **Office Mergers**—Divisions commanded by General Wolfe have been reorganized in the organization so that engineering is now combined with maintenance to full utilize the direction of Maj. Gen. B. W. Chidlow, as a deputy commander. Procurement, now placed with supply and maintenance under direction of Maj. Gen. Lester T. Miller, also as a deputy commander, was formerly chief of the supply division.

Replacing General Bertrandus as maintenance division chief, under Chidlow, is Brig. Gen. Isaac W. Orl, returned from maintenance and supply commands in the European theater. Replacing Col. Sims is Col. Kenneth R. Ballantine, until recently director of personnel for the U. S. strategic Air Forces in Europe.

Col. William A. Dene, former deputy chief of supply has been advanced to chief of supply, the place formerly held by General Miller.

Plan Chief—Maj. Gen. E. E. Adair, formerly chief of ATSC management control, has been named deputy commander in charge of plans. Posts of deputy commanders in charge of personnel and intelligence are filled by acting

commanders, Col. Ralph Noma, and John M. Hayward, respectively, indicating that further changes may be anticipated in these posts.

Wolfe is best known for his development and production work on the B-39 Superfortress, first as production chief at Wright Field, later as head of a special B-39 project staff, and finally as first commander of the 30th Bomber Command, at the time operations were being in the China-Burma-India theater and the first Superfortress was made. He was the distinguished Service Medal for his work on the B-39.

Bertrandus, a former Douglas Aircraft Co. executive, was a World War I flyer with Eddie Rickenbacker's 94th Pursuit Squadron, and in World War II served in the southwest Pacific with distinction; winning the Distinguished Service Medal and other decorations.

Sims has been at Wright Field since 1934, and is credited with development work on the controllable propeller and other aviation research work.

Military Field Light Requirements Jump

Military requirements for aviation ground lighting equipment have increased during the last quarter year and are expected to continue high, at least until the end of the year.

Members of the Aviation Ground-Lighting Equipment Industry Advisory Committee told WTB officials that there was difficulty in planning continuous production because of gaps in military contracts.

Buying Control—Centralized procurement for military needs, established under L-1-285-revoked last April, will be centralized by military directive. The Air Technical Service Command, Wright Field, acts as the central procurement authority, responsible for the bulk of aviation ground lighting, excepting certain equipment for water landing areas procured by the Navy.

For aviation fields, the Airways Engineering division of CAA is processing equipment under its own centralized system.

The industry is hopeful that existing specifications and drawings will be simplified and reduced insofar as practicable to a performance status. Elimination of detailed specifications will permit



First Flight for New 'Mars' Version: The Hawaii Mars takes to the air on her maiden flight immediately after christening ceremonies at The Glenn L. Martin Baltimore plant.

the industry to exercise its ingenuity in the development of equipment and will open additional opportunities during the remainder of the year.

Peace Place Seen For Naval Mars

Navy believed ready to take all 36 Mars' ordered, even if war ends before final deliveries.

By BLAINE STUBBLEFIELD

About seven of the Navy's order for 36 Martin Mars JRM-32 maritime cargo planes are expected to be delivered by the year end. Informal sources say they believe Navy will take all 30 planes even if the war ends before all are delivered.

The Glenn L. Martin Company has just launched No. 1, the Hawaii Mars, 165,000-pound

(gross weight) revision of the 138,000-pound original XPB-3M long range patrol bomber, which was later converted to a JRM and which has made a remarkable record in the Coast-Hawaiian service of NATS.

Progress Halted—Conversations at the launching indicated that No. 2 is out the door and ready to fly, No. 3 is "well along," and No. 4 is "well under way."

It is estimated that production of the JRM's will be at the rate of about one per month or five weeks, thus completion of the remaining 19 would take at least 18 months. One unofficial report is that the Navy is set to take 50 Mars, come what may, and to consider the other ten later. The contract termination settlement on the elaborate make-ready and the low unanswered Mars order would be very high.

Principal speakers at the launching, July 21, at Middle River, Md., were Rear Admiral E. W. Watson, assistant chief of the Bureau of Aeronautics, and Marion Mrs. De Wet Clinton Ranney, widow of Rear Admiral Ranney now on duty in the Pacific, christened the flying ship and it was flown the same day.

Airline Use—Navy could use the estimated 15,000-pound seat payload capacity of the entire Mars fleet to good advantage right now in the redeployment of troops and shipment of critical supplies. One spokesman for NATS said that if Congress objects to maintenance of the anticipated fleet of 30 in peacetime, for "service of the Pacific islands," some can be declared surplus and sold to U. S. flag or foreign airlines.

Glenn Martin and friends of fly-



Where the Weight Went: On the photo above, North American Aviation engineers have worked the parts from which critical weight was removed to produce the newest Mustang version, P-51H.



Bombing. If a jeep full of the Santa Monica, Calif., shore had lobbed shells into this Hillside farm they would have dropped nearly into (1) the private offices of Donald Douglas, president of Douglas Aircraft Company; (2) into extremely busy parking lot used production A-26 bombers and Army transports. The Hillside stage follows the general course of the plane's biggest building.

experts of allied nations.

It was so well done that Clever Field's lower operator frequently had to "red light" Army and Navy planes trying to land on the dam by air strip nearby, and men with flags were stationed on the real landing field to locate it for incoming pilots.

Capitol Opposition Faces SPB Change

There are signs of opposition on Capitol Hill to the proposal made by President Truman for a single administrator of the Surplus Property Board to supplant the present three-man board.

While the President stressed the importance which he attaches to an immediate revision of SPB by sending his recommendation to Congress, the House has so far made no move with which Congress can interfere; the request is indicated by the fact that both House and Senate went ahead with recess plans without discussing an extended stay in Washington to enact Mr. Truman's proposal.

Reluctant Fight.—Congress wrangled for weeks last year over the single-administrator versus multiple-board issue and finally settled on the three-man compromise. Some members have expressed reluctance to reopen the controversy, although the President's recommendation already has done just that.

There was some resentment among some members over the President's approach in presenting

his request. Mr. Truman commented on his belief that time had proved that new Secretary of State Fielder—who advocated a single administrator last year—was right and that members of Congress who established a three-man board were wrong. There are indications that some members are ready to defend their position in favor of the three-man set-up.

Senator Elbert Thomas.—(D-Utah) chairman of the Senate Mil-

New Air Staff

Two top Army Air Forces posts have been consolidated to become the assistant chief of air staff instead of the former two posts.

Operations, requirements, and maintenance, and material and services have been combined into supply and logistics. **Lient Gen. Frank L. Kuhlman**, the new deputy superintendent of AACF, and chief of staff.

Five generals who have been serving overseas have joined the new air staff as assistant: **Major Gen. Fred L. Anderson**, Jr., assistant chief of air staff, personnel.

Major Gen. Elwood R. Quandt, assistant chief of air staff, intelligence.

Lient Gen. Hoyt S. Vandenberg, assistant chief of air staff, operations and training.

Major Gen. W. M. Peacock, assistant chief of air staff, supply and logistics.

Major Gen. Laurin Nostad, assistant chief of air staff, plans.

tary Affairs Committee which handles SPB legislation, ventured to predict to *AVIATION NEWS* that there will be no change in the three-man establishment.

Bill Set.—Legislation incorporating President Truman's views on the matter will be introduced as soon as Congress returns from summer recess.

Overseas Surplus Power Shift Nears

Final details are being ironed out for the transfer of authority and personnel for overseas disposal of surplus aircraft, from the Foreign Economic Administration to the Office of the Army Navy Liquidation Commission.

It seems evident that William W. Brinckerhoff, now chief of the aircraft division, will be director of the aircraft division of the Comptroller August 1 is the effective date of transfer.

New Official.—Discussions have been held on the question of having a high civilian official to act as liaison between the Comptroller and the aircraft manufacturing industry and air transportation industry. To date no one has been selected, and an officer should be brought to the Comptroller's office for aircraft. Brinckerhoff would still continue to direct the division as the operating level.

The new man would direct policy and would represent the industry viewpoint to the Comptroller and explain activities to the industry.

Newly appointed executive officer for the Comptroller is Brig. Gen. Lehman W. Miller, who replaced Col. Clark Kittrell, who will shortly leave for an overseas assignment with ANLC. General Miller, former military attaché in Brazil, has been advised to the Comptroller on South American surplus activity.

Continued announcements of new personnel can be anticipated with the aircraft division of ANLC increasing by some 30 people.

British Jet Veteran Dies

Squadron Leader A. O. Moffatt, of the RAF, senior test pilot of Power Jets Limited, producer of the original jet-propelled aircraft, was killed when his twin jet plane ran with an accident during a demonstration flight at Whetstone, in Leicestershire, England, and crashed.

14—HEADLINE NEWS

PRIVATE FLYING

Shake-Up Of CAA 'Old Guard' Seen General Aviation Demand

Pilot, manufacturer, airport, and service operator spokesman join in charging older employees with maintaining outdated philosophy as shot down against progressive actions of Administrator Wright; General Inspection division is main target.

By WILLIAM KROGER

An attempt to convert top officials of the Commerce Department and CAA of the integrity of a wholesale shake-up in the agency is evident in the increasing signs of dissatisfaction with the agency among manufacturers, aircraft service operators, industry associations, and growing thousands of private pilots.

Common view is that changes in CAA regulations can be particularly helpful until there is a similar change in personnel. Better criticism has been directed in private at both CAA personnel and policies for months. Those most immediately concerned—aircraft service operators and pilots—have been as fearful of possible action as possible under the bureaucratic system attributed to CAA that they have been wary of speaking out.

Laws Passed.—But as more and more stroke appear in print, and the Non-Scheduled Flying Advisory Committee bears a growing number of complaints on methods and conduct of CAA inspectors, there is a determination among operators to bring the situation into the open.

Perhaps the greatest objection is that while recent review of Civil Air Regulations has tended toward relaxation of safety requirements, those not involved with certifying these regulations have not changed. Their philosophy, as it is maintained, is the same as it was 15 years ago.

Striking at this condition, an editorial in the July issue of *National Aerospace*, published by the National Aerospace Association, declares, "Mr. Wright (CAA Administrator T. P. Wright) has inherited to carry out his policies a great many men who have no intention of doing so."

Civil Service Shield.—Asserting that "there is an Old Guard with-

to determine whether he has been carrying out Mr. Wright's objectives."

Supervision Ratio.—"It is high time to make some changes. A system which requires 11,000 employees to supervise the flying of 23,000 civilian planes cannot succeed with 100,000 or 200,000 planes.... CAA would need 44,000 to 60,000 employees."

Previously, National Aerospace had endorsed the proposed Part 93 of CAA—Part 93 of CAA would require four times the present staff to administer.

One of the main sources of dissatisfaction with CAA's operations is the General Inspection Division, which is under the direction of Assistant Administrator Fred M. Lester. Changes of capriciousness, indecision, vagueness are made against inspectors by operators.

Duty Lapses.—The Non-Scheduled Flying Advisory Committee has received reports of lapses of from 60 to 100 days in inspectors' performing their duties. The operator of a CAA-certified flight school waited from last fall until that month for the assignment of a flight examiner although a school, upon designation, is supposed to be given an examiner.

Many operators have created the idea that pilots and operators have of the inspection division. Although various organizations get high returns on questionnaires to pilots and operators, a CAA regional office queried 100 operators with-



PRIVATELY-BUILT MIAMI AIRPORT:

The Miami Aviation Country Club, exerting only rental of transient hangars for a business program, is now operating for flight training. Two hangars are in operation. In the foreground is U. S. No. 1, the main highway into Miami, eight miles south. In the background is Bayshore Rd., on which a regular base will be located. Multiple "T" hangars are now being built to house the store that 20 planes regularly based at the field. The club has made progress despite harness thrown in its way by Miami officials and a class of businesses, who oppose privately-owned airports, used to force all operators onto public airports. No public airports have been started, although another private airport has been started on jar.

NATA Policy

National Aviation Trades Association's board of directors meeting, scheduled Aug. 1 in Kansas City, may bring a decision on operations and policies of Civil Air Examiners.

Opposition, raised by many members in recent months, is "stand-off" taken by association officials are receiving serious consideration by the directors.

► **Pastor Baker**—One outcome of the meeting is likely to be a clearly defined act of association policy, laid down by the entire board of directors, to which the others will be expected to adhere strictly in the future.

out a single reply. The old explanation is being heard again: "Officers are afraid to answer CAA questions. If they answer truthfully, they are bound to be critical and they are afraid of what will happen."

Administrator Wright has just issued revised instructions to regional officials. Some question this will be effective. They say changes and some wherein CAA subordinates have been ordered from above, or action without awaiting their superiors. A recent appointment of field men to assume work in an entirely new sphere of activity was made public under Mr. Wright's name. Actually, Mr. Wright had no knowledge of the action until after it had been taken.

► **Another Fee**—The general dissatisfaction with CAA is prevalent, too, in the Non-Scheduled Flying Advisory Committee. Administrative Order 25, establishing the Committee, promised that the advice of the committee would always be obtained before the promulgation of new regulations, policies or procedures affecting private and non-scheduled aviation.

Despite that, the General Inspection division put out no safety regulation, instruction No. 196, concerning the appointment of private pilot examiners, without the knowledge of the Committee. And this was done nine days before the Committee met to consider that very subject, among others. Mr. Wright was absent at the time. The requirements of the division are stricter than those later recommended by the Committee.

Considered by some observers to be indicative of the entire philosophy of the inspection division is a provision in safety regulation

No. 196, that "any Flight Examiner who complies with an unnecessary long record of approvals without any disapprovals should be investigated by the Inspector to determine the caliber of the students being recommended for approval."

► **Reverse Value**—CAA has already stated that examiners generally will be the instructors who teach the applicants to fly. Some private flying groups now wonder if CAA is putting a premium on inefficiency and if an examiner will have to fail arbitrarily one of his own students every now and then merely to protect his own status.

New Examiner Role Remains A Blank

CAA admits failure to update any special private pilot flight examiner despite "authorisation" two months ago.

Although nearly two months have passed since an "instruction" went out to all CAA inspectors directing them to appoint private pilot flight examiners, Washington CAA officials admitted last week that not a single one has been appointed.

The administration made a virtual myth out of a CAA press release of July 23 which stated that the CAA "will not authorise" qualified men to give flight tests to private pilot applicants.

► **Explanation**—Asked for an explanation of the long delay, a CAA spokesman attributed it to failure to have the necessary form completed at the Government Printing Office.

Observers viewed the delay, however, as probably another maneuver in the continuing dispute between conservative and liberal factions, in and outside, of CAA over the regulation of private non-scheduled aviation.

It is known that CAA's Non-scheduled Flying Advisory Committee came to Washington in June prepared to recommend for state-level provinces for appointment of private pilot flight examiners that were not designated in the June 4 instruction of Fred Lamer, assistant administrator in charge of safety regulation.

► **Quiet Action**—But, when the committee met, June 11-14, they found that Lamer's instructions had been sent out quietly the week before. Confronted with this instruction, which, if fulfilled, would at least partially remedy the situation it makes it easier to get away with.

announcements for private pilots, the liberal group did not press its claim as vigorously.

Some of the liberals mentioned, namely a few appear, that at least some of the new examiners would be named and ready to go to work when the new Civil Air Regulations affecting private pilots became effective, July 1.

It is understood that a large number of recommendations have

been received from CAA field men, for appointment of individual examiners who are qualified even under the rules laid down by Lamer.

► **Washington Blame**—So, responsibility for the delay appears to rest in Washington, either at the overburdened Government Printing Office, or in the CAA Safety Registration Office for failure to "expedite" the necessary forms which it requires, so that they would be ready when needed.

Harlow Buys Plans Of Interstate Planes

Sale of all surplus planes and production equipment of Interstate Aircraft and Engine Corp., Inc., Los Angeles, Calif., to Harlow Aircraft Co., Alameda, Calif., was announced last week. As a result, Harlow will go into early production of post-war personal aircraft at Alameda Airport, which it recently purchased from TWA.

Interstate's jigs and tools will allow immediate manufacture by Harlow of 88 and 100 hp. Cadet light planes.

► **Another Plane**—Harlow officers also anticipate production of a revised model of the all-metal low-wing, flat-bottomed airplane, which was produced before the war and at the time showed high performance characteristics.

The purchase of the Interstate airplane firm gives Harlow, in addition to the Cadet model, two Interstate designs that were under development at the opening of the war. One is a folding wing monoplane somewhat larger than the Cadet. The other, which had not gone beyond the mockup stage, was a high performance two-engine personal airplane employing a highly streamlined "teardrop" fuselage.

Interstate will make its post-war future on the manufacture of aircraft accessories, soft drink dispensing machines, a hemispherical refrigeration compressor, and one-cylinder, four-cycle, gasoline engines ranging from ½ to 6 hp.



A glint in the globe shows why NATS need more Martin Mars!

Look at the globe. Note the width of the Pacific. And remember, distance doesn't lead encirclement, where logistics are concerned.

How to get blood, vital supplies, or passengers across the Pacific quickly? That's a job for the NATS . . . the Naval Air Transport Service.

NATS Soar Over Every Ocean

Thanks to the NATS, life-giving blood has reached the Leyte beachhead 48 hours after leaving San Francisco. Thanks to the NATS 82-ton Martin Mars transports were flown over the Pacific alone in 1944. And thanks to the NATS, our fighting men, from Rio to Okinawa, are receiving high-priority cargoes . . . ammunition,

a precious to tomorrow's airfields. Martin flying boats will pay big dividends to tomorrow's airlines. Prowed in service with NATS, both Mars and Mariner are known qual-

This insignia is a welcome sight to our fighting men in every front.



itatively. Both are in production right now . . . a fact which will mean prompt delivery, at minimum costs, of postwar commercial vehicles. So far, speed, comfort and economy . . . plus no travel or ship, via Martin flying boat! THE GLENS, L. MARTIN COMPANY, BALTIMORE 3, MD. The Glens L. Martin Company—Owens

Martin
AIRCRAFT

Division of Lockheed

New Taylorcrafts Expected By Fall

"Quantity production" of the two-place side-by-side Taylorcraft Model EC12 is expected to be underway by September, Nash Ruan, new Taylorcraft president, has announced. (Photo on Page 20.)

Production has already started on both the two-place plane, and the much publicized Model 15 four-place Taylorcraft, full production of which is expected to be reached by December.

Prices—The two-place plane will sell for \$1,285, FOB Alliance, Ohio, while the Model 15 will sell for \$3,550 to \$3,925 depending on whether it has a 125-hp. or a 190-hp. engine.

The first plane to be offered is generally similar to the present two-place Taylorcraft but with new instrument panel and control wheel, an extra gasoline fuel tank to increase cruising range, a one piece composite propeller wind-shield and other extras.

President Ruan declared that while the price of the two-place model is the same as that of the pre-war predecessor, the customer is getting an additional \$150 to \$200 worth of new equipment and refinements. The four-place plane price will be several thousand more than 50 percent lower than the lowest previous four-passenger plane.

Auto Level—The new redesigned control is very favorable with the automobile industry, Ruan says, since a 33 percent advance in passenger automobile prices is planned.

Economy of operation and automobile-style comforts are emphasized in both designs, the company reports, with a gasoline consumption figure of more than 25 miles to the gallon for the smaller plane and a good 15 miles to the gallon for the family plane.

Canadian Air Clubs Get More Aircraft

A total of 72 aircraft were sold by War Assets Corporation, Canadian government surplus sales organization, during June for a total of \$100,761. This included 48 de Havilland Tiger Moths to the Royal Canadian Flying Club Association for distribution, after repair and overhaul, to flying clubs throughout Canada.

This is part of the 250 Tiger Moths recently (AVIATION News, July 16) sold to the association.

Briefing

For Private Pilots and Non-Scheduled Aviation

Fifth American woman glider pilot to attain a "C" soaring proficiency rating is Mrs. Virginia M. Beeson, 23 years old, of Hicksville, L. I., Mrs. Beeson, an employee of Republic Aviation Corp., and secretary of the Republic Boeing Society, is a member of the Airkeepers Gliding and Soaring Club, has been flying gliders three years. She won her "silver" with a 38 minute flight at Elkhorn, N. Y., recently.

"RECOUPES" TO GRAND CENTRAL—Mr. C. C. Mooseley's Grand Central Airport Co., Glendale, has signed an agreement to distribute "Easycoupe" for the state of California and is making arrangements for appointment of dealers in the territory. H. W. Blitsbeck, Grand Central's assistant sales manager, will direct sales.

SAMPLE OF CURRENT TROUBLE—Sydney Nashirji, Lear aircraft radio sales manager, reports that he succeeded in getting enough tubes of one particular type to complete Lear radio installations on 25 otherwise-completed new Grumman Widgeon amphibians. He sent out 171 telegrams, 33 letters and made 32 telephone calls in order to round them up. And while that trouble is something special, it's a sample of the kind which aircraft manufacturers are finding in assembling hard-to-get components to complete new personal airplanes.

TRIANGLE OF AIRPORTS—Three nearby airports in the New York area which will offer private pilots facilities under the same management, as soon as restrictions on Long Island flying are lifted, are Triana Airport at Andover, N. J., Westfield Airport at Bayview, N. J., and Rockaway Airport, on Long Island. Under the arrangement contemplated, flyers will be permitted to fly rented planes cross country from any of the three bases to another without returning the plane to the first base. Westfield and Triana Airports are now operating.

46 NEW HANGARS—Construction of 46 new hangars, 10 of concrete block, and the others of prefabricated materials, was reported underway at three airports for private flyers in the Miami, Fla. area, last week. The Miami Aviation Center had 16 individual hangars, and that center eventually expected to build 38. Embry-Riddle's Chapman Field was awaiting delivery on 20 prefabricated hangars, while Brown's Airport was awaiting arrival of 15 prefabricated hangars. It is estimated there are now approximately 100 hangarable civilian planes in the Miami area.

YOUR PERSONAL PLANE—Generally sound advice is given to potential plane buyers about places, costs, airports, service facilities, and other factors in the private flying picture, are found in a new book, "Your Personal Plane," by John Paul Andrus, recently published by Dell Sloan & Pearce. Appended is the pre-war CAA airport directory, now quite antiquated and in some respects inaccurate.

PRE-FLIGHT TRAINING—Capt. Albert Luke of Lewis School of Aeronautics, Lockport, Ill., predicts use of the Program pre-flight training will become an integral part of school and college aviation courses, as well as an aid to actual flight training. His prediction follows experiments at the Lewis Chicago pre-flight school in which pupils were given approximately 18 hours of flight lecture and observation and showed value of the training in their later aptitudes and coordinations during actual flight training. —Alexander McReavy

Average price paid for the June sales group was \$440.

Transocean Transport—Also 25 Garrett V transports were sold at an average of \$10,760 each, 6 Avro IV transports at \$10,000 each, 10 SNCASO aircraft at \$15,250 each, and a Lockheed transport (type not stated) for \$14,000.

Sales were made to Trans-Canada Airlines and to purchasers in Winnipeg, Iceland, Mexico and South America.

A Link trainer as well as spare parts were also sold during the month.

Total Sales—This brings to 461 the total number of aircraft sold by WAC since its inception last autumn, for a sum of \$1,932,826. Engines, instruments, parts and other components sold during the same period totalled \$1,287,000, bringing total aircraft sales by WAC since its start to \$2,214,000.



FROM THE FIRST BLIND FLIGHT in history when "Jimmy" Doolittle took off,

made a circuit and returned to his starting point by reference to instruments alone, Kollsman Instruments have played a vital part in almost all history-making flights. Just as the development of the first Sensitite Altimeter made possible that first blind flight, other products of Kollsman's continuing research and development in the field of aircraft instruments have played similarly important roles in aviation history.

KOLLSMAN AIRCRAFT INSTRUMENTS

PRODUCT OF

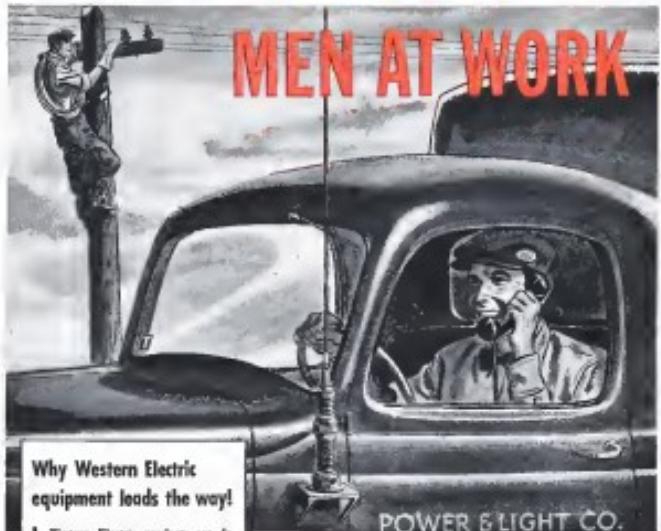
SQUARE D COMPANY



CAMDEN, NEW JERSEY

DUBLIN, CALIFORNIA

MEN AT WORK



or MEN AT PLAY



Why Western Electric equipment leads the way!

1. Western Electric products are designed by Bell Telephone Laboratories—world's largest organization devoted exclusively to research and development of all phases of electrical communication.

2. Since 1869, Western Electric has been the leading maker of communications apparatus. Today this company is the nation's largest producer of electronic and communications equipment.

3. The outstanding quality of Western Electric equipment is being proved daily on land, at sea, in the air, under every kind of weather. This same company has supplied so much equipment of so many different kinds for military concentrations.

POWER & LIGHT CO.

Western Electric equipment leads the way!

Global war has spotlighted and proved to all the world the tremendous value of instantaneous communication by mobile radio telephone. In the air, on land and at sea, it has helped to get the job done faster and to save countless lives.

Men at work or men at play, in the press stand, will find mobile radio telephone an equally efficient means of keeping

in quick, easy contact with business headquarters or with home.

For more than a quarter of a century, Bell Telephone Laboratories and Western Electric have pioneered in the field of mobile radio. When manpower and materials become available, count on Western Electric for the finest equipment for mobile communications services.



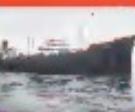
Buy all the War Bonds you can
... and keep all you buy!

Western Electric has specialized

knowledge in all of these fields



AM - BROADCASTING - FM



MARINE RADIO



AVIATION RADIO



MOBILE RADIO



HEARING AIDS



SOUND SYSTEMS



VACUUM TUBES



COMPONENT PARTS

and three dozen of his best men. Student Pilot Army ROTC, who used the slogan "We're in it to stay," organized, staffed, and opened the school in accordance with their original intent. The school is now in full swing.

CAR FEDERATION: Protection of aviation was voted as an important peace-time goal.

WILLIAM ALLEN: Captain of Machine Shop

Mr. Johnson was recently invited when a guest at Federal Field, Oct. 4, 1944. Federal Field is the largest airport in the country, having the Planes At Rest in the permanent exhibit. Mr. Allen was invited to speak on a subject of interest to the right of the field. Mr. Johnson, who has been the most active member of the group, was also invited to speak. The pilot said he was interested in the subject of the war and asked us what he could do about it. The audience was unanimous in its answer.

CAB FEDERATION: Frequent cause of accident was consciousness of the importance of flying. In the opinion of Mr. Johnson, the chief reason for the increased interest was the closeness of the post-war era.

BUREAU OF AIRWAYS: With a Commercial Flight Bureau, and as a result of a meeting at a Lockheed plant, Dec. 22, during a non-motorized flight, the Bureau of Airways has a flight in Los Angeles, Calif., on Jan. 10, 1945, to demonstrate the use of aircraft in the post-war period. The flight will be made in two flights, one from Los Angeles to San Francisco and another from San Francisco to a few other cities. The flight will be made in a non-motorized aircraft, as an indication of the non-motorized aircraft of a small flight before demonstrating the use of non-motorized aircraft in general.

CAB FEDERATION: Protection of aviation was voted as an important peace-time goal. The school was opened in a small building which housed the pilot who lived residence in the building.

New York Surveys Present Airports

State issue map showing location of 356 airports, 59 of which are in Class One.

Fifty-nine of the 186 airports in the State of New York are in Class One, with runways between 1,000 and 2,700 feet, according to the new airport map of the state which has just been issued by the Bureau of Aviation, State Department of Transportation.

There are 127 airports which are below Class One, of which 14 are under military control and not open to the public. Of the 123 civilian fields, 41 are municipally owned or controlled.

The map bears a minimum of printing, only those towns or cities

having airfields being shown. The exact location of the airfield itself is shown rather than the name of the County lines, lakes and rivers are shown but are not labelled to avoid confusion.

"It is strictly an airfield map," declared Leslie A. Bryson, director of the Bureau of Aviation. "It is the first step in arriving at our master plan for airports of New York. This plan, as approved by Henry J. Keayes, USJCC president

local organizations for these objectives."

Vernon White, Las Vegas, Nevada, has been named chairman of the USJCC national aviation committee to direct the program. The first of eight regional "mobilization" meetings to stimulate local organizations action was to be conducted July 22 in Chicago, by

Commissioner M. P. Catherwood, looks ahead ten years into the post-war era."

The next step in the State's aviation plan will be publication of a digest of laws affecting aviation in New York.

The State's post-war plan calls for 256 airports within the next ten years, with the great majority owned or controlled by municipalities.

When Oswald Ryan, veteran

member of the Civil Aeronautics Board, visited last week at Washington National Airport, he became the first representative of the board to get actual pilot experience. But he won't be the last.

Student Dr. Warren G. Edward Warner, 25, of Edgewood, Maryland, has received his student pilot certificate in preparation for beginning flight training, and L. Welch Poppe, chairman, was ex-

pected to begin his late last week.

Increased interest of the board members in personal flying may do much to bring about an enlightened federal regulation of personal flying during the first critical post-war years.

Meanwhile Commerce Secretary Wallace has approximately 10 hours of solo flight, and William A. M. Burden, assistant secretary of commerce for war, has his private pilot's license.

► **Emergency Emphasis:** The fact that virtually all the flight training of the top officials seems taken in emergency flying is reflected to some extent in a special interest of top government aviation officials in two-control sprung-plane for the private flier.

The proposed new Part 34 of Civil Air Regulations, already gives such a plane an advantage by placing it in a special category, although that proposal has been strongly opposed by Aircraft Industries Association technical engineers.

* An aeronautical product of the B.F. Goodrich Co. was displayed in a 4-page booklet issued by the company. It is a combined condensed catalog and buyers' guide with engineering data.



NEW HANGER FOR WESTCHESTER:

This massive hangar, which will house 120 private planes, is to be erected on the Westchester County Airport, near White Plains, N.Y. Standings have been taken and construction will start shortly. A number of private planes are now based at this field, which is also a sales center for R.P.C. surplus planes.

Top Air Officials Sprouting Wings

CAB another solves at least 16 of government aviation of fields taking pilot training, indicates liked flightpath interests.

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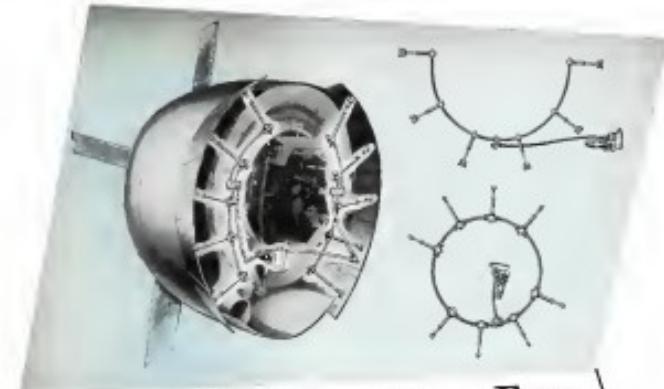
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How B-29's Keep Down Fever

Here's an inside look at the mechanism that covers the nose flap on the giant B-29's engine to keep an even operating temperature whether conditions are treacherous or atmospheric.

These nose flap mechanisms consist of Lear Screw Jacks driven by a Lear Power Unit through Lear Hydraulic Shifting. These systems are strong, light-weight and dependable, proved by years of satisfactory service in thousands of airplanes. Lear systems adapt

themselves readily to individual needs compared with other equipment. They are readily inspected and easy to service.

Lear flap mechanisms are a user specialty. The company builds more of them than any other manufacturer. And they are proving their reliability to everyone serving on many of the hardiest working and most distant types of planes in the air.

LEARN INTERNATIONAL, INC., 214 W.



All of these planes
flying today are
equipped with
Lear Covflap
Mechanisms



B-29
SUPERFORTRESS
Bristol, Bell, Martin



B-52
LEADER
Ford, Consolidated, North American



B-17
FIGHTER
CONSOLIDATED



B-25
MITSUBISHI
CONSOLIDATED



B-47
STRATOJET
CONSOLIDATED

LEARN, Incorporated
Dept. 40
Pine, Ohio
Immediately open publications please send me
your booklet on Lear Covflap Mechanisms.
Name: _____
Address: _____
City: _____ State: _____

PERSONNEL

NAL Airport Programs Assigned E. Ellis Bentley

Formerly general manager of airports for the City of Jacksonville, Fla., Ellis Bentley has been appointed airport and construction engineer for Southeastern Airlines. Bentley will be responsible for all National's airport construction, remodeling and changes. He is a graduate of the International committee of Florida Engineering Society, a member of the American Association of Airport Executives, and president of the Jacksonville chapter of National Aeronautic Association.

Fredrick W. Kohde, known as the first American to attempt a trans-Atlantic flight from Europe to America, has been appointed manager of quality control at Westinghouse Electric Corp.'s Aviation Gas Tur-

bine division at South Philadelphia, Pa. Kohde joined Westinghouse from Jacobs Aircraft Engines Co., where he was chief engineer. He has also been associated with the Civil Aeronautics Administration, AAC, and various aircraft engine manufacturers.

Gen. Knudson Elected To GM Corp. Board

Last, Gen. William S. Knudson has been elected a member of the board of directors of General Motors Corp., from which he resigned as president in 1945 to head the Office of Production Management.

He was later commissioned a lieutenant general in the U. S. Army to serve as director of production for the War Department. General Knudson has also been director of the Air Technical Service Command.

The directors also elected Col. George K. Howard a vice-president of quality control at Westinghouse Field

charge of overseas operations in 1943, to become deputy chief, motor transport division, Quartermaster Corps. In February 1944 he was ordered to SHAEF and has since been placed on inactive duty. He returns to General Motors as European regional manager.

Major Rudolph W. Schreider has been awarded the Distinguished Flying Cross at a testimonial dinner in his honor at Chicago. Major Schreider was wounded five times during 20 years ago which contributed greatly to the present technique of bombing.

of high altitude forced the aviation in 1916 and a few years later became the Army's chief test pilot at Dayton. He tested the first turbo-supercharged engine and also was the first to test the use of oxygen in flight.

W. M. Powers has been appointed district traffic manager for Bausell Airways in Oklahoma City. He will also continue as special representative of Bausell to the State of Oklahoma. For 14 years Powers was connected with the Oklahoma Publishing Co., as national aviation and automotive representative.



NEW NACA MEMBER:

Major Gen. Edward M. Powers is shown being sworn in as a member of the National Advisory Committee for Aeronautics by John Vinton, NACA secretary. At right, Dr. George W. Lewis, vice-chairman, watches the ceremony. General Powers, Assistant Chief of Air Staff, Material and Services, replaces Maj. Gen. Oliver P. Eshel as the fifteen-member, predominantly appointed, committee.



AIRLINE EXECUTIVE:

Carlene Roberts, one of the youngest women ever to be elected an assistant vice-president of an airline, has been named to that post by American Airlines, Inc. Miss Roberts joined American as secretary to an officer in 1938. A year later she organized the movement of personnel and general headquarters from Chicago to New York when American's headquarters were changed to LaGuardia Field.

THE advancement deals in the shape of things to fit His workshop to a wind tunnel. His task, to determine the behavior of full-size aircraft under all conditions before they are ever built or flown.

For last Curtiss Wright constructed within its Buffalo Research Laboratory the largest, fastest, variable density wind tunnel ever owned by a single aircraft corporation.

Here, with no risk to human life and with maximum savings in the time and money involved in building and

By compression or expansion, the air in the tunnel may be varied 90% to 60 pounds per square inch to enable tests formerly requiring three or four tunnels.

Here, with no risk to human life and with maximum savings in the time and money involved in building and

flying full-size airplanes, Curtiss-Wright speeds the development of aviation so that all the world may more quickly and fully share its benefits and luxuries.

All wind tunnel operations are controlled from this Control Room. The motions of the model under test can be seen on such screens as Left, Drag, Pitch, Roll, Yaw, Compress and Load Pressure are recorded on data tape which is then fed into special 300 tabulating machines. Within 20 minutes these machines can compute and deliver a mathematical picture of test results that would otherwise consume weeks of laborious human effort.



Test 15-blade, 22-foot diameter fans driven by a 10,000 horsepower motor capable of sending 310,000 cubic feet of air through the tunnel test chamber at speeds approaching the velocity of sound.



Great strides in the control of the wind tunnel during the war around the turns, present it from "pinching up" to the other three, also, controls have the hole truth the air back up by the tremendous increase of many times normal speed.



Control Room of the tunnel.





DOES YOUR EQUIPMENT WORK AS WELL IN FLIGHT AS IT DID IN THE LABORATORY?

Modern electronic equipment is carefully and skillfully built to assist our airmen in locating and neutralizing enemy installations, and to guide them safely back to their home bases. Laboratory tests are made to ensure high efficiency and uniformity in these devices.

However, it has been demonstrated that vibration and shock as experienced in high powered military aircraft can reduce the efficiency of radio equipment as much as 50%, even though total failure may not always occur.

Electronic equipment may even pass laboratory vibration tests only to fail under the continuous beating of long flight missions. Moreover, com-

bat damage to aircraft may induce vibration conditions undreamed of by the radio engineer.

The one type of vibration and shock mounting which will cushion and protect airborne equipment under all conditions has proven to be the Robinson Vibroshock®. It has the reserve capacity to meet emergency conditions, and staying power to outlast the airplane itself.

Newly designed units should be protected by Robinson mounts and their use as replacement recordings on current equipment may almost entirely eliminate servicing problems.

The Robinson Organization is ready to assist and advise on vibration mounting problems.

George A. Lewis

**ROBINSON
AVIATION, INC.**

730 Park Avenue, New York, N. Y.
2507 Wilshire Blvd., Los Angeles 3, Calif.

VIBRATION CONTROL ENGINEERS

R. O. Bullwinkel Named NWA V-P For Traffic

R. O. Bullwinkel, assistant to the president of Northwest Airlines, has just been elected to the new post of vice-president for traffic. Bullwinkel has directed all traffic and sales activities in the transportation field for many years; he began his career in commercial aviation in 1926 when he was named traffic manager for the Alaska division of Pan American Airways. He left that post to join Northwest.

Joseph E. Cason has been appointed supervisor of international information for American Airlines. Three years ago Mr. Cason was closely associated with American's Memphis operations, having set up customer and immigration facilities for air traffic between the two countries upon its inauguration. In the interim, he was on special assignment to head the international department of personnel assigned in American's Air Transport Command contract operations. Prior to joining American Airlines, Mr. Cason was with the Chicago Motor Club and before that was with the Railway Express Association for 15 years, representing them in Europe and the United States.

George A. Lewis has been appointed assistant director of industrial engineering for Transoceanic and Western Air, Inc. Mr. Lewis has had wide experience in aviation and in manufacturing circles and joins TWA from Canadian Vultee Aircraft Corp., where he has been chief industrial engineer at the Vultee Field division.

John W. Shuster, veteran executive of the Railway Express Agency, has joined PCA in the newly created post of director of cargo sales. He was manager of air express for Railway Express' eastern division.

Katherine Anderson, former hostess of Mid-Continent Airlines, holds the newly established position of director of passenger relations. All future meals with DC-3 equipment will give stewardess service the company said.

H. T. Scott has been appointed traffic representative for Mid-Continent Airlines in New Orleans. Scott has had previous passenger experience with railroads and bus lines.

G. E. Koenig has been appointed chief of aircraft radio customers service of Lear, Inc., in charge of the post-war market for aircraft radios

AVIATION NEWS • July 30, 1945



ANOTHER STAR FOR STRATEMEYER:

Promotion of Maj. Gen. George S. Stratemeyer, commanding general of the Army Air Forces, India-Burma theater, to the rank of lieutenant general has been announced. His chief of staff, Maj. Gen. Charles B. Spotswood, is pictured smiling on the third row. On May 31, General Stratemeyer relinquished his post as Air Commander of the Eastern Air Command which he had held since its formation on December 15, 1943. Previously he was deputy commander of the Army Air Forces under General D. H. Arnold.

Headquarters will be in Grand Rapids, Mich.

Arnold G. Wehausen becomes editor of the American Airlines' "Flightline" World War II Flying Press, succeeding Jasper M. Bowles, resigned. Wehausen has been with American Airlines and other firms and is a former member of the Minnesota Chamber of Commerce.

Warren A. Petersen has been named supervisor of passenger relations for United Air Lines at Chicago.

Ralph W. Strother, veteran executive of the Railway Express Agency, has joined PCA in the newly created post of director of cargo sales. He was manager of air express for Railway Express' eastern division.

John A. Parks has taken over the post of station manager for Pan American Airways' Memphis Division in New Orleans, La. He will handle all major foreign requirements with Pan Am.

G. E. Koenig has been appointed traffic representative for Mid-Continent Airlines in New Orleans. Koenig has had previous passenger experience with railroads and bus lines.

TELLING THE WORLD

• Board of directors of Littlefield, Inc., with plants at Chicago and El Monte, Calif., have appointed Russell G. Akas director of sales and advertising. Akas has been manager of sales and his appointment as director gives him full responsibility for Littlefield's sales plants both domestic and export. National sales offices are in Chicago.

• Holloman Commandant director of Square D Co. has issued sketches of passenger car telephones for a catalog. The folder is directed to sales executives who wish to "add extra passenger interest and enjoyment" to their flights.

• The first edition of the Combined Automotive, Aviation, Agricultural, Marine (AAAM) Service Equipment Manual is now being shipped to the majority of auto factories for redistribution to dealers. Containing 222 pages of up-to-the-minute information, the Manual will be sent to approximately 31,000 car dealers. Represented in the Manual are the bulk of all the service equipment manufacturers in the United States.

IT MEANS LIGHTER-WEIGHT ELECTRIC SYSTEMS FOR AIRCRAFT AND BETTER HIGH-ALTITUDE PERFORMANCE. MAINTENANCE IS LESS BECAUSE ALL YOUR MOTORS ARE "BRUSHLESS!"

Now

400 CYCLE A-C
MAIN POWER

FROM THE MAIN ENGINES DIRECT

Another "impossible" job

has been whipped! Now, large, complex aircraft can have all the long-sought advantages of alternating-current main power. They can have it without the extra weight and nuisance of separate auxiliary engines, or d-c to a-c converters.

ANOTHER G-E "FIRST"

The 400-cycle a-c system, first developed by G-E with important co-operation from Sandford Machine Tool Company, offers a saving in weight over former systems that, alone, is highly significant. Added to this are the important advantages of having 400-cycle a-c motors throughout the ship. The elimination of

motor brushes means elimination of the problems of commutation and brush wear encountered with d-c. Maintenance is reduced and simplified. You get better, more reliable performance at high altitude.

Parallel Alternator Operation

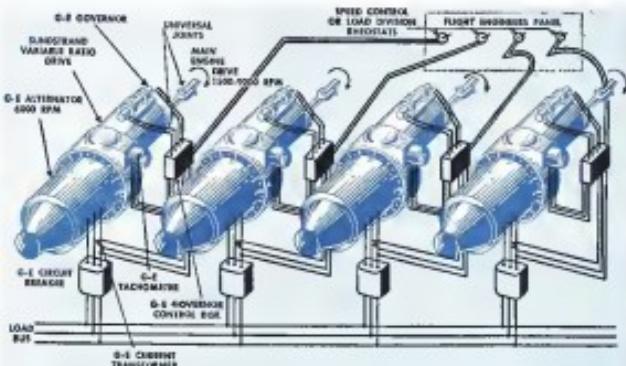
Until now, there has been no way of driving alternators from the main aircraft engines at constant frequency, and paralleling them on a common power line. Engine horsepower on many planes may be 100 times the alternator rating. The individual engine speeds may vary over a 4 to 1 range, with very rapid acceleration. Yet the alternators on each engine must run at constant frequency, must parallel reliably, divide load equally, and minimize electrical voltage drop despite disturbances. To do this, paralleled alternators must be driven, under all conditions, without one *or two mechanical degrees of perfect synchronism*.

Fascinating tests, under severe conditions duplicating those encountered on modern bombers, have convinced critical aircraft engineers that an "airworthy" solution of this tough problem has been found. The sketch at the right shows, schematically, how the new system works. *Apparatus Dept., General Electric Co., Schenectady 5, N. Y.*

► TEST LABORATORY where the new G-E 400-cycle, 400-cycle, parallel system was tested practical. Ten 40-hp alternators are driven from 400-hp aircraft engines under typical stress conditions of varying engine speeds, fluctuating shaft load, and line loads, and their successful parallel operation is a routine everyday performance.



Buy all the BONDS you can—and keep all you have



Breakers, such as voltage regulators, differential current relay, master safety relay, and reactive load divisor transmission, are provided, although not shown on this sketch.



PRECISION PRODUCTS
ENGINEERED SYSTEMS
FOR AIRCRAFT

GENERAL ELECTRIC

THE AIR WAR

COMMENTARY

More Than 800 Superforts Poised For Jap Death Blow

Miscellaneous notes on Pacific air operations outline Very Heavy Bombardment organization, Mustang escort job, carrier based bomber use, new American and British planes.

When Tokyo radio announced that there were more than 800 B-29's in the Marianas they were looking for trouble. They did not have to particularly ring them up, either.

Four Very Heavy Bombardment Wings have been announced as making the XXI Bomber Command of Maj. Gen. Le May's Twentieth Air Force. These are the 58th and 313th on Tinian, the 73rd on Saipan, and the 34th on Guam, new headquarters of the XXI.

A VHB WING comprises roughly 5,000 in total personnel, and is composed of 3 Groups, each of which has 3 Squadrons. Each squadron normally has twelve B-29's. If the average is 16 per squadron, 54 per group, 162 per wing, \$10 for five wings.

Other VHB Wings are in training under the supervision of the passes: H-29 planter, first chief of staff of the Twentieth Air Force, and original leader of the XXI Bomber Command in the Mariana—Maj. Gen. Hayward S. Harmon.

More Might—When these began arriving at Chitose to operate under Lt Col. Gen. Doolittle off some of the mere than two dozen big aircraft now being prepared on that fantastically busy air base, the London-based Supermarine ministry will not be far away.

According to Harmon, he found an two Jims have a nice timing job to jump up with the Superforts from the Marianas, but once they do the team has the great advantage of having almost exactly the same figure as the most efficient crusing speed of each of its members—248 mph.

Sometimes the escort business works the other way around, with

52 or more P-51's (D's & K's) shadowed by one B-29. Because of the fact that the 200-ton bombers waste time in the air, such Jap intruders would be very hazardous for the light, single-seat fighters without the benefit of a leading Superfort with its magnificent radio, radar and other navigational and storm-warning devices.

Escort Team—Another escort team has been raising hell with Jap airfields and installations on Bougainville early July from new bases on Okinawa. These are Liberators and long-range Thunderbolts (P-47N) of Brig Gen. "Tommy" White's Seventh Air Force, now a part of General Kenney's Tactical Air Command.

A new model of the Mustang is reported as about ready to join the lighter squadrons of the Fifth and Seventh Air Forces on Okinawa. This is the lightweight, long-range P-53 H.

Lightweight, because ingenious production methods and supersized strips trimmed some 700 lbs off the empty weight of the D & K. **Hange Surprise**—Long-range, because by use of an advanced type of laminar flow wing and other improvements drag has been reduced and range increased to well above the 1,800-mile round trip capability of the present Mustang.

The "H" is a triple-threat fighter, with six .50-cal. machine guns, 10 "zero-length rails" for HVAR (high velocity aircraft rockets), weighing 60 lbs., and far more effective than the 4.5-barrels type rockets plus two racks for 1,000-lb. bombs or large drop tanks for extra fuel.

The new Mustang should be the fastest single-engine fighter in the world, but Britain's new Spitfire, projected successor to the Spitfire line, will have to be watched.

Reports have also come in about Marine pilots flying Mitchells (G28J-1 J) on the 600-ft. flight deck of carriers of the Essex class, using jet-assisted take-off (JATO). **Rockets, Too**—Besides their battery of eight 50-caliber guns in the nose, bomb loads up to two tons, these hard-hitting raiders carry four 200-lb. rocket projectiles under each wing for highly effective attacks against Jap shipping.

The second "J" of the designation indicates jet or rocket assisted take-off, as the D & D in the Marine Corsair (F4U-1 J) means day fighter, and the J stands for the night fighter Hellcat (F6F-3 N).

Joining in the Mariana's 58th Task Force (Spartans' Edith Fleat) and the McCon 38th Task Force of Admiral Baley's Third Fleet, are sections of Vice Adm. Foster's British Pacific Fleet under the general operational direction of Admiral Nurkis.

British Fighters—Among the new British-designed naval fighters will be the Seafire XVII, which is the equivalent of the Spitfire XIV with Rolls-Royce Griffon II engine, but with the new bubble canopy of the Spitfire XXII.

Top speed is probably 3 percent under the Spitfire, or about 425 mph.

This is the announced speed of the U. S. Navy's new model of the Corsair (F4U-4), but that is thought to be on the conservative side. Alternating with Army Strategic Air, Army Technical, U. S. and British Naval Air striking powerful synchronized blows, life in Japan will not be pleasant during the next few months.

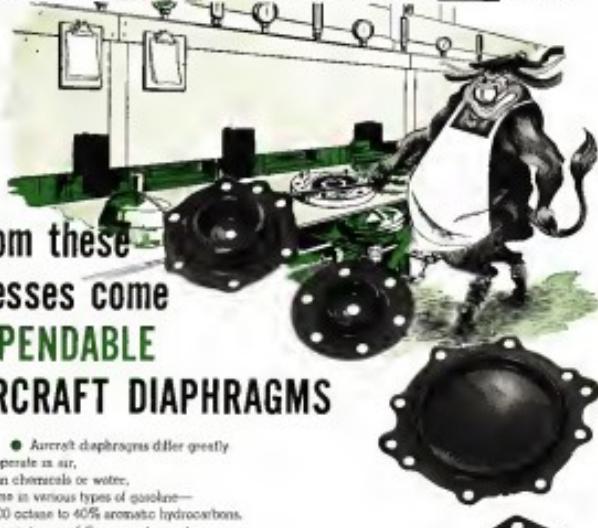
NARRATOR

Canadian Airline Pilots Hit 'Chosen Instruments'

A retrenchment in the operations of Canadian Pacific Air Lines due to the Canadian government's "chosen instrument" policy has resulted in the release of more than 50 pilots, it is charged by the Canadian Air Line Pilots' Association.

Likely possibility for further emigration in flying in the Dominion exists for these men, it is said, as Trans-Canada Air Lines is now hiring only ex-service pilots. Additionally, CALPA maintains the Canadian system of stacking off all truck, road and intercontinental traffic for the government airline is not going to provide sufficient expansion to absorb the number of returning airmen who will want to continue in aviation.

Man's genius for making things is limited only by the physical properties of the substances used to make them.



From these presses come DEPENDABLE AIRCRAFT DIAPHRAGMS

• Aircraft diaphragms differ greatly

Some operate in air, others in chemicals or water, and some in various types of gasoline—from 100 octane to 40% aromatic hydrocarbons. Sirvene meets any of these requirements.

At temperatures ranging from -65° to +180° F. diaphragms must be efficient and dependable; they must be flexible to permit careful calibration, yet tough and strong, for long life.

Stress meets all these specifications, too.

Extreme care is necessary in making diaphragms, because thicknesses of 0.01" to 0.02" are common. No blow, however minute, can be permitted. A major fault may mean the loss of irreplaceable lives and expensive equipment. Aircraft diaphragms should be precision built by laboratory-type production methods, and subjected to endless inspections.

That's the way Sirvene diaphragms are made.

But, perhaps, the most important factor that contributes to Sirvene's extreme reliability, is the superior engineering which controls every phase, from the development of the correct formula to meet particular operating conditions, to the finished product.

That's the reason why Sirvene is so dependable.



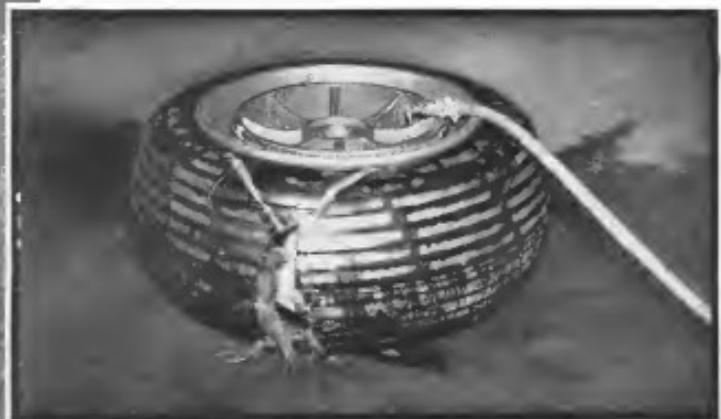
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Tire explodes at 635 . . .

Another example of "Building for today, testing for tomorrow!"

OUR PHOTOGRAPHER waited hours to take this picture of a tire exploding. As a coincidence series of waves was forced into it, the internal pressure went up . . . no twice as much as the tire would normally need to make . . . three times . . . five times . . . six times.

Suddenly, at a pressure of 635 pounds, it exploded! The picture our photographer had awaited so patiently turned out to be mostly a paper of water. But the smaller picture shows what happened. The head and sidewall, the part most likely to fail, held until the tremendous pressure burst through the crown of the tire.

Such things shouldn't be done to tires except in test. This tire needed an extra safety factor for a special purpose. But pushing tires beyond endurance, and doing it scientifically, is one method of B. F. Goodrich development. We call it testing for tomorrow. Even ordinary passenger car tires are driven at 100 miles an hour, because they may someday have to operate safely at such speeds.

Airplane tires are tested at greatly multiplied pressures, because tomorrow's planes may require it. Nobody knows how flying conditions may change

In the years ahead. But B. F. Goodrich expects to have tires and other safety products that meet the conditions—no matter what they are!

Looking ahead—testing for tomorrow—enabled B. F. Goodrich to produce the first tire engineered and built especially for airplanes, and today more than 40 rubber and synthetic rubber products for airplanes are manufactured by the company. These include De-liners for wings and other leading edges, bullet-sealing fuel cells, grommets, cushions for insurance panels and many others.

Our complete, fully-documented catalog is just off the press. Contains brief facts on all types of B. F. Goodrich products for planes. For free copy, write to The B. F. Goodrich Company, Aerospace Division, Dept. AB, Akron, Ohio.

Skyway or Highway

B.F. Goodrich

FIRST IN RUBBER

PRODUCTION

German Aircraft Research Seen Far Ahead of Allies

Missions returning from Reich, indicate 15-year superiority in aerodynamic research; jet transports were next on production list; underslung liquid type rockets highly developed; winged artillery missiles uncovered.

Information pieced together from the returning military and technical missions to Germany indicates the branches in which German aircraft development excelled, and the reasons.

On the credit side of the Germans, this information indicates they were ahead of the United States in jet engines, aerodynamic research, rockets, particularly liquid types, high velocity artillery using winged missiles, high speed torpedoes, supersonic and transonic research. An excellent quality and abundance of tools, both for production and testing, were also found.

Dreadful Leadership—One U. S. aircraft authority contends that the German scientists were as much as 15 years ahead of the United States and allies in aerodynamic research, although this issue always touches off sharp debate whenever it is raised among aeronautical engineers and designers.

Some reports indicate the Germans were at least two years ahead in research on jet and gas turbine engines, although American engineers have made rapid progress in the last two years.

What was important on the German angle, however, was that

they had yet engines in volume production, the Beyer Motor Works having turned out several thousand BMW-003, and Junkers having produced many others, the Junkers-004. Those in production were no better, if as good as the present U. S. jets, but they were in volume production and they were good enough to work.

Victory Fantasy—There are some authorities who contend the German jet engine production was so far advanced that the course of the war might have been altered had not the AAF struck down German transportation when it did.

In Bavaria there were many jet engines awaiting shipment to assembly plants and only 200 miles away there were new Messerschmitt ME-262 and other jet fighters and bombers airplanes ready to go once engines were installed. The blighted highways and railroads kept them apart.

Now jet engines still in the laboratories and design of new airplanes indicated that soon the German world would have had ready a large bomber or transport that could be thrown across the Atlantic by jet, hours under present crossing time.

Submarine Rockets—In another field, the Germans had developed high speed torpedoes and underwater models to a high degree and one of the outstanding developments ready for production was a high velocity artillery weapon that developed tremendous muzzle velocities. Upon leaving the smooth-bore barrel, the projectile became a winged missile which was reported exceedingly accurate over a long range.

The advanced stage of German research in high speed was particularly apparent in some American sheets. At one point on the Austria border there were two continuous flow supersonic wind tunnels being used in the development of high velocity projectiles. They were used not only for rocket fired projectiles, but also for artillery fired missiles.

An interesting technique employed in this research was the photographing of air flow around the model with a complex and accurate optical instrument. It was placed inside the tunnel and recorded in continuous sequence the stages of airflow around the model.

Tools—Another characteristic of German development which has impressed other observers was the abundance of high grade machine



G-E JET ENGINE:

Front picture of a jet engine related by the Army Air Forces shows technicians completing work on a G-E jet powerplant of the type used on lightning swift AAF planes. Still another engine, the Super G-E jet, is also being built by General Electric. The front of the engine with its small starter motor and other connections is forward. Just inside the front cover shield is a compressor which whips air to combustion chambers.



PERFORMANCE CONTROLS THE SKYWAYS

THE EXCITING NEW ERA of air travel comes ever closer as airlines unfold new planes. PCA (The Capital Airlines) is among those planning to offer new comforts, speeds and travel opportunities. Now serving many important industrial key cities, PCA will soon extend its routes into New York. And when conditions permit, PCA routes will be served by such modern transports as the new Douglas luxury liners.

These new transports will be equipped with

In Precision Hydraulics, Fuel Pumps,
Air Pumps, Related Accessories . . .

PERFORMANCE POINTS TO *Pesco* FIRST



PESCO Crayola by Driggs

PESCO precision design for propeller feathering, fairing, fuel and hydraulic systems. Thus, the products of PESCO experience in meeting exacting demands for military aviation will continue with outstanding performance for commercial aviation. And, by adapting this same equipment, other industries will find expanded uses for Pressured Power and Controlled Flow by PESCO. Write for descriptive literature . . . PESCO Products Co., Division Borg-Warner 11610 Euclid Ave., Cleveland 8, Ohio.



"You're an Angel...with wings!"

Ambulances fly in this war, and their flight brings swift evacuation of the wounded from the areas of front line danger. And because ambulances fly, the wounded are minute, not days, from the close-winded enemy of base hospitals.

Flying ambulances lead wings to the skills of doctors and nurses. For doctors and nurses and medical equipment go with the wounded in those hospital wards of the air. The skill of unanswered engineers and medical science has thus continued to save lives and bring swift recovery.

Fairchild ingenuity, for example, gave the Army Air Forces the "Pocket"—a plane in which men and machines can be carried into battle. But the "Pocket" is a ship of many too, convertible in a few minutes to

a plane ready to receive the victims of enemy action.

Known in the Army as the C-87, the longrange "Pocket" can carry 30 litter cases, four attendants and medical supplies. Cramped quarters do not hamper nurses ministering to the wounded. An ingenious litter suspension affords ample room for movement. So successful is this simple-suspension device, developed by Fairchild engineers, that it has become standard equipment on all types of planes used in flying hospitals.

Versatile in its applications, the "Pocket" can do double-duty as a money ship. It can carry the wounded from front line evacuation fields over long distances to base hospitals. Returning to the forward areas, it can carry up to one ton of supplies needed at the front lines.

With other concerns faced with similar low cash reserves, the need is urgent for measures making possible extensive expenditure on research, so British industry is not again to fall behind.

Although privately-financed aircraft research developed both the Hurricane and Spitfire before the war, a general deficiency in research increased both the cost and length of the war, as is charged in a recent report by the government's Select Committee on National Expenditure.

In addition, the document asserts, Britain was harmed because adequate steps had not been taken to maintain during the years of

peacetime. Many of them, particularly testing and inspection tools, had elaborate finishes.

Inspecting and testing was developed to a high degree, probably due to the presence of slave workers and the consequent possibility of sabotage.

Research Demands Increase In Britain

Answers to six laws regarding post-war aircraft development projects among many new calls for stepped-up attention to research.

Post-War Day arguments in England of that country's wartime industrial effort are developing the same call for a stepped-up, dominant research program that is apparent in the United States.

Among the measures advanced in Britain is one for an amendment to the tax laws to encourage greater expenditure by private industry on research.

While a similar move in the United States involves the method of carrying the research items on a company's books (AVIATION NEWS, July 16), a proposal by Lord Davyden, head of the Engineering Industries Association, would grant tax rebates only to those British firms which made the fruits of their research available to all industry.

Illustrative of the need for government decision on the matter is the revelation that one of the largest British aircraft manufacturers, de Havilland Aircraft Co., produced in three years approximately \$300,000,000 worth of aircraft, engines, and propellers. But how many only about \$500,000 for both research and distribution to shareholders?

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CORSAIR ARMAMENT:

This view of the Corsair F4U-1 shows the installation of part of its armament, the 20 mm. cannon.

power a nucleus of skilled men which could be expanded when war came.

Bendix Plans Post-war Baltimore Plant Projects

Post-war plans to use its two Baltimore plants in the manufacture of radio and electronic equipment, both for home and industrial use, have been partially revealed by Bendix Aviation Corp.

While expressing the conviction

that programs being formulated will result in a post-war business for its Baltimore installations "many times greater" than pre-war volume, the company has not spelled out the effect on employment. Bendix Radio, and Fries Instrument division, before the war had a total employment of roughly 2,000, which has swelled to approximately 13,000.

World Center—However, Ernest R. Breech, company president, told a recent director's meeting, plans envision a contribution in percentage of the city's wartime position as one of the world's important centers of research and development in electronics.

New Armor

A new-developed aluminum alloy combining lightness with exceptional strength is another product of Fairchild's work. The B-36's Reynolds Metals Company, creator of H360, the new metal, declares the use of its fabrication also contributes to its usefulness in Superfortress.

A composite alloy consisting of a high strength aluminum core and an outer face with corrosion-resistant aluminum alloy, H361 has a tensile strength of 64,000 pounds per square inch.

Varied Use—In addition to its use in aircraft, present and projected, the alloy has already been employed in construction of all-metal box cars, and a suitable for trucks and buses.

Monthly Pace Is Set For Conversion Planes

Conversion of 20 military transports per month for commercial use is anticipated by Douglas Aircraft Company at its four authorized conversion and overhaul centers.

To date the several companies, which began setting up modifications less than two months ago, have completed nine conversions. Grand Central Airport Company, Glendale, Calif., has delivered two; Tamm Aircraft Corp., Van Nuys, Calif.; two, Globe Aircraft Company, Dearborn, Mich.; and Montreal has delivered one.

New Thesis—Some concern may be expected to be felt by con-

Fairchild Aircraft
Division of Fairchild Engine & Airplane Corporation, Hagerstown, Maryland

THE ARMY NEEDS NURSES
-JOIN NOW!

son companies over the life prospects of this phase of the aircraft industry in view of the fact that Douglas Aircraft Company now is in heavy production of Army C-117s at Oklahoma City and there is excellent prospect that in the next future large numbers, fully satisfied with airline seats, may be dedicated surplus and be released to airlines.

Mexican Plant Opened By Aircron Radio Corp.

Aircron Manufacturing Corp. has obtained a Mexican subsidiary known as Aircron S. A. and has opened a pilot plant and sales office in Mexico City.

Randolph C Walker, president, said the Mexican subsidiary has obtained a contract for a complete radio communications system for Compania Aerena de Voz Cruz. The equipment, which will be manufactured by Aircron at its Kansas City plants, is of the same type which the company has supplied for installation in airports throughout the world in connection with the war production program.

Ball Project — Aircron engineers

are currently making a test installation of the company's railroad radio-telephone equipment and space radio on the Mexican National Railways.

AAF Surplus Tires Sales Shift Shown

GPA price order reveals Commerse Department has taken over disposal. Superfunds due set to go at \$25.50.

Change in AAF methods of disposing of surplus airplane tires is revealed in an GPA order setting selling prices for such disposed by the Commerce Department's Office of Surplus Property.

Formerly, such tires were sold as scrap by the Air Forces, but they recently were declared surplus and turned over to Commerce in the belief they could be "converted" for use on farm vehicles. How the tires happened to wind up in Commerce—the disposed agency for "surplus" goods—is a source of unofficial wonderment at that agency.

Last Resort — Most reasonable explanation is that Commercio's

surplus property office includes an automotive tires and tubes division and presumably the cast-off aircraft tires were deemed that way for want of any other likely disposal source. Gifford, however, says plastic pouches can be used to hold a kind of a farm machine could take a tire such as used on a heavy tractor.

Another feeling is that other agencies wanted to get "out from under" in the handling of such a politically touchy subject as tires—regardless of size. Initial cost of some of the tires ran into hundreds of dollars. In contrast, the highest GPA ceiling is \$25.50 for a Super-tire tire.

Commerce will dispose of the tires only to in-the-trade distributors from its warehouses at Mogadore, Ohio, and Ontario, Calif. The initial lot to be affected by the new GPA ceilings totals 16,657 tires.

Restricted Air Data Readied For Public

Preparations are under way for the release of information on government scientific and technical developments during the war, which heretofore have been in the restricted class.

The facilities of the Office of War Information have been made available to the newly-organized Joint Board on Scientific Information Policy for the handling of such information. This joint board will be responsible for the organization and release of scientific and allied information for the Office of Scientific Research and Development, the War and Navy departments, and the National Advisory Committee for Aeronautics. **Joint Chairman**—Chairman of the Board is Dr. John T. Tate, research chief, National Defense Research Commission, OSRD. Among the board members are Dr. George W. Lewis, director of aeronautical research, National Advisory Committee for Aeronautics.

The Joint Board has been created by concurrent action on the part of the Secretaries of War and Navy and Dr. Vannevar Bush, director of OSRD, with the consent of the chairman of NACA and the director of OWI. Its creation was in accordance with the recommendation of the Joint Committee on Scientific Information Policy, consisting of the Secretaries of War and Navy and the OSRD director, to study the prob-



Electronics

BETTER METHOD...

BETTER PRODUCT...

BIGGER MARKET!

No one in the wood industries can afford to overlook the advantages to be gained through the use of Eimac. The time saved in gluing and banding...in the shaping and molding of wood parts with electronic heating equipment bids fair to open many industries in manufacturing and fabrication circles.

Look for the name "Eimac" on the electron vacuum tubes and give preference to the insulation so equipped. Because...you get a double guarantee of dependability...one from the equipment maker and another from Eimac, backed by a solid decade of exclusive experience in electron vacuum tube development and production.

Demanding performance and dependability have made Eimac tubes first choice of the engineering experts throughout the world.

FOLLOW THE LEADERS TO

EIMAC
TUBES



FRENCH AIRCRAFT ON THE WAY:

The French aircraft industry is now working at about 20 percent of normal capacity on both new construction and repair work for the Allied air forces. Two of the craft reported in production are (above) the Latécoère 621, a 19-ton flying boat designed for transatlantic trooping and (below) the Junkers 52 (French).



ion of supplying the general public with authentic and useful information on wartime scientific developments.

Basic reports of the board will include such fundamental subjects as development of radar, rockets, metallurgy, jet propulsion, and aircraft design.

New Contract Halt Plan Used By Navy

Pre-termination agreement signed with Eastern Aircraft designed to settle industry problems ahead of cancellation.

A pre-termination agreement designed to settle in advance many of the problems involved in contract cancellation has been signed between the Navy and the Eastern Aircraft Division of General Motors Corp.

Looked upon favorably by the aircraft industry as a favorable development in sweeping away some of the uncertainties of termination, the Eastern Aircraft agreement is the first of its type negotiated by the Navy. It establishes alternative "step work" points, covers method of taking inventory, classification of inventory, sale by contractor, treatment of completed items and agreed upon conditions of profit.

Details Assured.—The agreement also details in detail with the inventory sheets, the determinants of the distribution of inventories, and the all important question of clearing the plant of components, special equipment and government-owned equipment.

One feature puzzling some industry figures is the inclusion of the

Canada's B-29

Canada's Minister of Supply and Defense, Mr. Lester B. Pearson, has announced that the Lockheed B-29 Superfortress will enter service with the Canadian production line at the Canadian Government-owned Victory Aircraft Ltd., early in September.

With the status output slated to go to the RCAF for operational use in Japan, a maximum goal of 20 aircraft per month has been set. Prior to conversion to the Lockheed schedule, Victory had attained a rate of 38 Lancasters per month.



RETREAD FOR THE C-47:

Aircraft tire retreaded at the new repair plant at San Bernardino ATSC sheet remarkable wearing qualities. This C-47 tire has made more than 100 landings since it was retreaded and appears capable of many more.

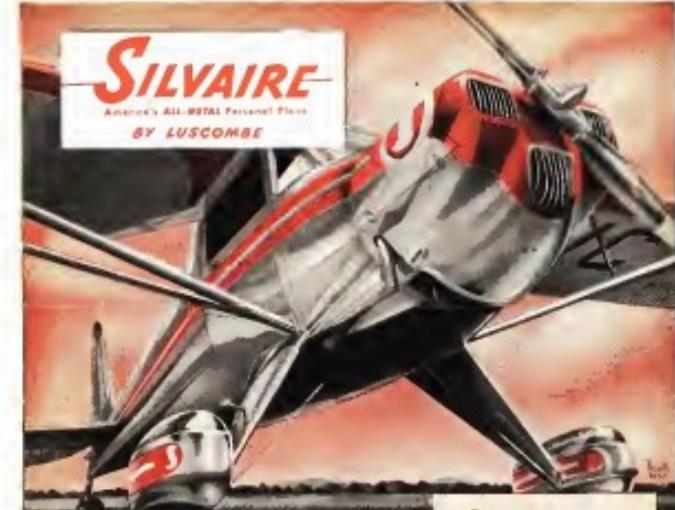
tires being produced there are no longer needed in advance of cancellation; however, it has been possible to come to an agreement on several basic questions, a plan negotiated in the same way as some aircraft company executives.

It was emphasized by the Navy that execution of the agreement does not indicate that there is necessarily a likelihood of termination of its airplane contracts in the near future.

New Propeller Design Engineered In Canada

A new design for aircraft propellers has been engineered by the propeller plant of Canadian Car & Foundry Ltd., Montreal, and the company has been awarded contracts after exhaustive tests in the United States and Canada.

The wooden propeller evolves a new principle in propeller design and construction, sharply stepping up quality, durability and performance.



A NATURAL PEACETIME STEP— TO AN ALL-METAL SILVAIRE FROM AN ALL-METAL FIGHTER!



SENIOR AIRCRAFT, U.S. NAVY

Variances In International Design Assailed

Long-standing differences in Anglo-American engineering practices and standards of measurement will be discussed at a conference in Canada this fall under auspices of the Canadian Production and Resources Board, of which the United States, Canada, and Great Britain are members.

The board has put out, for example, that it has been estimated that industrially-based differences in the design of screw threads alone, in Britain and the United States, have added at least \$166,000,000 to the cost of the war.

Propeller Problem.—Aircraft engineers, while hopeful that some-

thing can be done to reconcile the differences, point out that changes would mean the scrapping of millions of dollars worth of machinery set to present standards.

From the United States, at the conference, will be representatives of the Army, Navy, Air Force, Bureau of Standards, and the American Standards Association, as well as from the automotive industry and other industries. The National Standards Committee, which handles such matters for the aircraft industry, will be represented by the American Standards Association and will not have direct representation.

When wartime pilots return to peacetime pursuits, they'll naturally choose for their personal use an all-metal plane. For aerial warfare has proved this all-metal plane construction ensures greater durability, added air speed, extra economy of operation.

Luscombe's whole history has been one of utilizing metal in aircraft. Luscombe pioneered with an all-metal light plane—the SILVAIRE. And since war was declared, Luscombe has played an important part in the fabrication of aerial planes for many famous fighter pilots including the

JM/C-18-8

LUSCOMBE AIRPLANE CORPORATION, Dept. B-14

Trenton 7, New Jersey

Please tell me more about the SILVAIRE

I am interested in a business SILVAIRE deal.

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their own safety is at stake.

HEAD-ON ATTACK THREAT

Experimentation in combating bombing raids by our flyers had taught the enemy that one of the most effective means of attacking our heavy bombers was head-on attack...A tail turret from a Liberator was mounted on the nose...It worked so well...Emerson was commissioned to design and build a permanent type of nose turret for the B-24.

Reproduction of an article from
St. Louis Globe-Democrat Sunday edition, February 18, 1945.

A Tail Turret Goes to the Front ~ ~ at EMERSON-ELECTRIC

Converting a new Emerson-Electric B-24 Turret, from a tail to nose mounting, quickly, could be effectively done only against an extensive background of knowledge...knowledge acquired by Emerson-Electric in becoming one of the world's largest manufacturers of airplane turrets...This particular assignment was completed and put into production, to meet new combat requirements, without interruption of an already tight delivery schedule.

Emerson-Electric engineering knowledge and facilities are available for the design and production of all forms of airplane armament equipment. Your inquiries are invited.



Place in the Armament Engineering Division
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signed and built nose
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TRANSPORT

Airline Spokesmen See Chaos In ODT Plane Pool Proposal

Priorities system cited as capable of filling same needs in redeployment program; Senate group backs request that 1,000 Europe-based DC-3's be released to solve problem; lines claim move would shorten efficiency.

By MERLIN MICKEL

Disclosure that the Office of Defense Transportation has discussed with the War Department the pooling of surplus planes to aid in troop redeployment brought a general response, from air transport sources, that only clarity for the domestic air carriers could result from such a course.

In addition to the effect on the airlines, efficiency of such a move was questioned and the point was made that the priorities system could be utilized to attain the same results.

Army Decisions—Senate Hearings last week before the Mead Committee by Col J. Maurice Johnson, ODT director, were that such a step has not been decided upon definitely. Understanding is that the decision whether the Army shall use commercial planes under a pooling arrangement, similar to that in effect for Palauans and coaches on the railroads, will be left to the War Department. Under executive order, ODT has control over all civilian transport and would have authority to effect such a plan.

Authoritative sources indicate that about 75 percent of the trans-pacific flights, including military personnel flying at present, compare with 50 to 55 percent two or three months ago. A large part of this consists of men on leave, but priority officials point out that by substituting one type of military traffic for another, the program easily could be swung over to men being redeployed. It was conceded, however, that this might require some changes in airline schedules.

Johnson reported to the Senate (Mead) War Investigating Committee that the War Department has been directed to study the place of the civilian airlines and the Air Transport Command in troop redeployment in this country. He said ODT has a tentative plan

that would call for pooling by the airlines of a given percentage of their capacity for the movement, expected to reach its peak by next February.

European "Waste"—Members of the Committee outlined a proposal to bring pressure on the War Department to declare over 1,000 DC-3 type planes in the European theater as surplus, and have them brought to this country to help in redeployment. After persistent urging, the group agreed to defer a vote. Bureau goes to war with reports that the Army holds air transports in the RTO for non-essential courses and personnel use.

One of these is Senator Mitchell (D-Wash.) who contends these ships could be brought to the U.S. for short run redeployment move-

Redeployment Rate
More than 1,400 men a day are now being flown into Europe in the redeployment program, with planes landing an average of every 45 minutes.

Principal movement is by C-47's operated on the segment of the route from France. The men are then processed and moved by train to Central Europe, or through France, for final handling.

The operation — popularly known as the Green Project — has been handled without reported accident, with probably 400 planes being over the North Atlantic route. It is expected to be stepped up still more, especially when North Atlantic weather improves northern operations later in the year.

Mitchell said the Army also wants large transports, suited to trans-Atlantic flights, for short haul service in this country. The Committee expects to call ATC efforts to testify during the current investigation.

Jordan reported that more than 50,000 men per month are being redeployed from Europe by air. The figure for June being 35,000. The ODT chief was enthusiastic about the suggested return of 1,000 DC-3's, which he said would be "very helpful." Whether they would be



CONVERTED FORTRESS FOR SILA SURVEY

This converted Flying Fortress is being used by Swedish Intercontinental Airlines (SIL) to fly passengers between Stockholm and New York via Iceland and Labrador. First round trips are being made, with charter landing rights at New York granted by Civil Aeronautics Administration. American Export Airlines is U.S. agent for SILA during the survey period. The line plans to start regular service under a group arrangement with Norway and Denmark at an indefinite future date.

C-54 Tex Slowed

Certification tests of the Douglas C-64 have been delayed, and presumably will depend upon an earlier Army-Douglas agreement on the particular version of the C-64 to be selected for commercial production. CAA has been ready for more than a month to begin testing a C-64 for certification.

operated by the airlines or ATC, in the event of their return, was undecided.

Alpine sources foresee manifold difficulties if the suggested pooling of airline planes goes through—difficulties which might result in complete disorganization of scheduled air transport. They say that:

An immediate maintenance problem would arise, since mechanisms would have to be concentrated at redeployment points. Parts and equipment would have to be gathered together.

- ▶ Presumably the bulk of the operations would be on east-west flights, which might run into a shortage of qualified captains for these transcontinental runs and necessitate a large number of familiarization flights.
- ▶ A new breed would be placed

on aspects, many of which already are pressed to capacity.

► Plan: Utilization, which is expected to decrease about 1,800 miles per day, per plane, by Aug. 1 on a country-wide basis, probably would drop sharply.



Outside and Inside the C-82: Picture of the C-82 Packet in flight shows how the box-like fuselage is carried between the twin booms. Interior view, looking forward, shows the interior of the aircraft.

two small "jump doors" for paratroopers are cut in the double rear doors which open to full width when the ship is to be loaded or unloaded. A side loading door is at the forward end of the cargo deck.

First Air Freighter Flight Cost Statement Made For C-82 Packet

Direct operating cost of under 7 cents per ton-mile, for non-stop trips up to 500 miles, announced as second production model for Army comes off Eschield line; figures based on ATA system.

First assessment of operating costs on Fairchild's Packet was made recently as second production model

The prototype first flew at Langley on Oct. 30, 1944. Fairchild's contract was cancelled in June and changed to a fixed price basis from

ATA Measure — Panhandle's cost-plus-fixed fee. The first production model was finished in March and flown to Dallas in June. The presence of North American in the picture means that major changes can be made by the designer, manufacturer at the source and then passed on to the larger-scale producer.

Direct flying cost range is from \$6.93 cents per ton-mile for a 100 mile trip with a 16,113 lb payload to \$9.84 cents for a 1,200 mile trip with 8,333 lb payload.

Conqueror aircraft in the ship had been shown by airships, although it was being built only for the AA! for whom Troop Carrier Command it was designed.

Dallas Production — Fairchild does not expect to turn out as many of the ships at its Hagerstown, Md., plant as will be built at Dallas by North American Aviation after the eviction of the German authorities. It was never used for the production of aircraft, and instead he became what Fairchild believes is the first equipment actually designed for airborne warfare. It can carry 30 percent of the equipment of a standard triangular infantry division, and is large enough to accommodate truckloads



THE WESTERN MAP IS

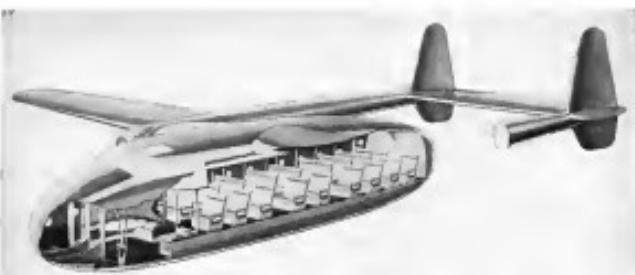
Changing Fast

- Western United States today is a new force to be reckoned with in the economic and industrial pattern of the nation. For, out here is 60% of all hydroelectricity, 50% of the aluminum capacity, 34% of magnesium, 80% of all non-ferrous metals. Here, too, is produced 1% of all fresh vegetables, 50% of the total frozen foods, 61% of fresh and canned fish. Petroleum and wood develop great wealth themselves, are source industries in the new chemical fields.

Sweeping changes in air transportation have kept pace. As typified by Western Air Lines, air transportation has勘shorized the great distances, speeded communications. Today, Western Air is all-out to finish off the job. Tomorrow, through route extensions and new lines applied fix, Western Air will help complete the transformation of the West.

General traffic office: 510 W. Sixth Street, Los Angeles 14





Possible "Packet" Passenger Version: This cutaway drawing by Fairchild Aircraft Engineers shows the Packet fuselage as it would look if converted to passenger use. Seats are arranged in carry-on day passenger. Baggage would go under the seats, which

holders, tanks, and half-trucks.
► **Clear Spaces:** Interior is squared and unobstructed. Floor is level at selected height. The ship has a tricycle landing gear, and its high tail surfaces permit the entire rear to be opened for quick freight handling.

It can carry 48 fully-equipped paratroopers, who can jump from a door in each side at the rear exit of the transport, and with no danger of striking the tail. Or it could be converted to a 34-passenger cabin ship. It can be used to tow gliders

are above floor level. The nose is lower than on the C-45 because better room for the driver, contains a lounge with bar and buffet in the fore compartment. The drawings are preliminary, and merely represent a suggested passenger arrangement.

How air ducts are built into the wings and tail surfaces to provide an antiicing system that works on either or both engines, and the manufacturer says the Packet is the first ship to go into production with such a system.

► **Military Test:** Weight and performance figures are based on preliminary flight tests with full military equipment. None are available on commercial operation under C-45, since the plane has not been fitted for such work although Fairchild officials believe such a

change would be entirely practical.

Stalling speed is reported at 75 mph., with full flap and landing gear down, and a 43,000 lb. load.

► **Crew:** A five for military and two for commercial operation. Two Pratt & Whitney R-2800C engines, with 2,300 hp each at 3,500 rpm., provide the powerplant. Propellers are Hamilton Standard full-interference hydrodynamic, three blades, 18 ft. i. diameter. Landing gear is tricycle and fully retractable. Construction is aluminum and there are no rivets with fabric or control surfaces.

► **Cargo容积:** Capacity: 2,573 cu. ft. Gross weight: 40,000 lbs.; design: 42,000 lbs. Empty weight: 22,000 lbs. Useful load: 22,000 lbs. Maximum payload: for 400 miles, 18,000 lbs.; for 1,000 miles, 15,500 lbs.; for 1,500 miles, 13,000 lbs.

► **Cruising speed:** 200 mph. Takeoff run at sea level, loaded, 600 ft. Service ceiling, 25,000 ft. Single engine ceiling, 18,000 ft. Maximum range, 4,000 miles.

TACA Loses Lodestar

TACA Airways has acquired 8 additional Lockheed Lodestars for use in Latin America and on the company's international routes to Miami and Mexico City. First of the planes is expected to go into service late this summer.

Two of the aircraft, obtained under loan from the U. S. Government, will replace Ford tri-motors being used on cargo services to mines in Nicaragua.



Across the Pacific - via new roads

Packet Economy Statistics

Fairchild Aircraft engineers claim the street drying costs on the C-45 Packet, shown in the table below, are the lowest for any existing two- or four-engine transport ever built. The figures range up to 650 miles. The figures do not include indirect or

overhead costs, but cover cost of fuel and oil, plane and engine depreciation, overhead and ground services, pilot and co-pilot pay, crew expenses, and plane insurance. They are based on 100 percent load factor.

SUMMARY OF DIRECT OPERATING COSTS

Type Length	Block speed	Payload		Cost per Tons-mile
		(lb.)	(tons)	
100	175	8,86	1.612	\$3643
200	181	7,31	1.463	6421
300	174	7,36	1.473	6421
400	172	8,21	1.613	6421
500	177	6,41	1.343	6046
600	185	6,31	12,513	6770
700	189	4,90	12,813	7413
800	166	2,81	13,443	8713
900	187	3,35	11,693	8780
1000	180	3,28	10,273	8872
1100	180	3,83	10,651	8879
1200	189	4,77	9,572	8994

Peacemakers

Peace in the Pacific can be achieved in only one way—by the unconditional surrender of Japan's military forces.

To shorten the road to victory, our leaders forecast that we must do more than conquer territory yard by yard and island by island. We must knock out the enemy's ability to make war. And to carry out that strategy they chose the Boeing B-29 as our major weapon.

Buck, tested and flown into combat under the terrific pressure of global war, the Superfortress is doing all that was expected of them and more.

They have enabled us to reduce American casualties and save precious months in making enemy war productive, because they are the only aircraft in the world that can cover the vast distances from bases in the Mariana

Islands to the blockades on many ports by saving miles.

The非凡 efficiency of the Superfortress reflects Boeing's unparalleled experience in designing and building four-engine aircraft, and it foretells the same qualities in the great Boeing planes of the future.

The performance of the B-29 more closely follows basic principles of research, design, engineering and manufacture. After victory, as today, you can count on any airplane "Built by Boeing" to last the way.

PRIMARIES OF THE B-29 SUPERFORTRESS • THE FLYING FORTRESS • THE NEW MARATHONER TRI-MOTOR TRAILER • THE STATIONAIR • FAR AMERICAN CLIPPER

BOEING

Unlimited Stalling Speeds Asked By 9 Of 11 Big Plane Builders

Post-war transport plans that fit current restrictions seen behind Lockheed vote for continued CAB stall control; Curtiss-Wright is other no-vote at Aircraft Industries meeting.

By SCHOLER BANGS

Nine out of 11 major U. S. aircraft manufacturers want no limitations on the stalling speeds of post-war air transports they will build.

A vote on the controversial issue of a stall speed limit, now set at 80 mph in the Civil Aeronautics Board's Civil Air Regulations for transports given commercial certification, was taken by the industry last week for the first time, after a meeting in Hollywood, Calif., of the performance requirements subcommittee of Aircraft Industries Association of America's Airworthiness Requirements Committee.

The Nuts—The two companies voting against elimination of the 80 mph stall restriction were Lockheed and Curtiss-Wright.

The elimination will become

effective if the Board adopts a revised version of Part 84 of CAB, now being circulated, and such a step was approved by Douglas, Boeing, Consolidated Vultee, Republic, North American, Martin, Fairchild, and Beech aircraft corporations.

As a result of the divided vote, a committee report to AAIA's National Airworthiness Requirements Committee at Denver, Aug. 4, will not include a statement on stall speed limits.

Separate Report—It was agreed that all companies at the Hollywood meeting prepare individual stall recommendations for formal approval of company executives and subsequent submission to CAB.

Heading the performance subcommittee, meetings of which were attended by 16 outstanding com-

CAA Abroad

The Civil Aeronautics Administration is planning to establish offices in London, Stockholm, and Lisbon during the current fiscal year, it was announced, following certification of North Atlantic routes by the Civil Aeronautics Board.

A fourth is to be set up in San Juan, Puerto Rico. Already on three airline routes, the city is expected to become a crossroads for further northbound and southbound air operations.

Inspector Posts—An air carrier inspector probably will be stationed in the foreign office, and a general inspector may be placed in London to handle administrative responsibilities for civilian pilot and mechanics certificates.

Altogether, CAA hopes to have offices at 17 foreign points two years from now, if Congress provides the money.

Aviation engineers and aerodynamicists, was Dr. W. Beddoe Gould, chief of aerodynamics for Douglas Aircraft Co., Santa Monica.

The committee's stall vote, even though an informal action and one that may not appear in AAIA reports, may be considered as an overwhelming indication of industry interest in high-speed, high-performance, transport models of high wing loading.

Lockheed Point—It is no secret that the West Coast Lockheed crew is in a position to gain a decided advantage over Boeing and Convair of the present CAB 80 mph stall restriction as outlined.

Neither Boeing nor Convair's proposed big post-war transports will be able to carry full payloads and fuel loads without exceeding the 80 mph stall limit.

On the other hand, Lockheed engineers insistently have demanded their post-war imports to meet existing CAB specifications. This is true particularly of the Lockheed Constellation and it may be assumed that Lockheed's attitude during the committee meeting indicates that the massive new CAB Constitution, under construction for the Navy at Burbank, has been designed to operate commercially within an 80 mph stall limit.

Other Issues—While the stalling speed issue without question was the most critical aspect of the Hollywood Airworthiness Requirements

Airlines Form CAR Policy

Agreement on three main controversial points in connection with the Civil Aeronautics Board's proposed revision of Part 84 of the Civil Air Regulations on airworthiness requirements for planes in the transport category was reached by the airlines last week in Washington where the subcommittee on CAB's Civil Air Transport Association's Airworthiness Requirements Committee met.

The issues:

- Elimination of stalling speed restriction.
- Endure rate of climb with one engine inoperative.
- Takeoff climb requirements with all engines operating.

The ATA subcommittee, as was expected, favored the first of these. The stalling speed limitation is 80 mph in the present regulations, but the revised version being circulated in the industry omits the restriction. Those favoring its removal contend to retain it would prevent many of the new planes that will be up for airworthiness certification in the future from being operated economically.

Working Wings to him!



THERE are many reasons for the farmer's keen interest in flight. For one thing, he has a bonding field right behind the barn. But, more importantly, a plane on his land is a useful farming tool. With it he can request crop insurance, measure fields, check irrigation equipment, locate spot frost lines, monitor insects...check soil condition...hop to town. No flight of fancy this, farmers have actually been doing these things.

It may come as a surprise that this Galveston, the American Farmer, is the likeliest of all transportation prospects in sight. But consider:

From Last August a group of farm-oriented planes, owned and operated by them, flew to the First "Flying Farmers" Day held by Oklahoma A. & M. News survey shows that 46% of personal planes and 20% privately owned after the war will go to residents of rural areas. **Then** Check-up in Kansas reveals that 455 out of 18,000 farms have leased or bought a plane, as against only 20% out of 200,000 city families.

Farmers' interest in aviation proves one thing: They're a progressive element in the nation's future, open to new ideas, eager to put them to work—the prospects for all kinds of advertising.

The farmer's very progressiveness is the main reason for his interest in *Country Gentleman*. In every issue he finds more information—more detailed, more authoritatively treated—than in any other farm magazine. It's no wonder the American Farmer goes to *Country Gentleman* before any other publication. He does. And it's no wonder he's a progressive and loyal subscriber among other magazines.

What business can ignore the farmer's strength?

Country Gentleman

A SATURDAY PUBLICATION

No. 5 with EXAMINE—RURAL DEALERS—ADVERTISERS

ments Committee concluded, it covered only a portion of four days of subcommittee meetings for the review of all phases of the proposed Part 64.

Much of the work of the western conference consisted of impressing, for greater clarity of expression, an engineering committee which had been established in the proposed regulation. For the review of 64, and writing of recommendations not yet available for publication, the conference was divided among the following subcommittees in addition to that on performance requirements:

- Flight Loads Requirements—Roy A. Miller, chief of structures, Consolidated Vultee, chairman.
- Ground Loads Requirements—C. R. Strong, chief of structures and weights, Douglas, chairman.
- Power Plant Requirements—J. W. Young, chief of power plant section, North American Aviation, chairman.
- Pressure Cabin Design — J. P. McBrearty, chief of structures, Lockheed, chairman.
- Fire Protection—H. R. Hoek, fire protection, Douglas, chairman.

The conference was also attended by Eugene Narva, ALA director of technical service, Washington.

'Simplified' Cargo Service Offered

New York company, flying Lockheed, plans operation with no hills; first cargo is pianoforte.

An all-cargo air service, operating on a strictly fundamental basis with no deluxe features, was to be inaugurated last week by Air Cargo Transport Corp., of New York. Response to the company's initial advertising is reported to be sufficiently heavy to make a selective loading necessary. For the present time, say company officials, only cargo directly associated with the war effort will be handled.

Three Lockheed Lodestars, obtained from surplus, comprise the ACTC fleet at the present time, although application has been made for allocation of C-87s.

In line with the company's stated policy of offering "basic" air cargo service in its simplest form, the Lodestars have been stripped of every dispensable feature. The soundproofing has been removed and the floor reinforced. It is estimated that the planes can carry a payload of approximately



TWA GLASS CLOTH:

Transoceanic & Western Air is using Neoprene-coated Fiberglas cloth as supporting fabric for seats in all its controversially operated planes. Original tests were made on TWA's Stratoliners. Photo shows the cloth in use in horizontal and upright sections of one of the passenger seats.

approximately 3,000 pounds, depending on the size of the loads to be carried.

► **Freight Shipped**—The first flights were on a contract for shipment of pianofortes, according to company officials.

The operations base is at Roosevelt Field, L. I., where the company maintains its own ground crew.

The ACTC rate scale, based on the usual classes of commodity, is Class 1, 55 cents per ton mile; Class 2, 45 cents; Class 3, 40 cents; Class 4, 30 cents.

H. Hay Petrelli is president and treasurer of ACTC. It is understood that he has been identified with the garment industry. William L. Rose, secretary and general traffic manager of the new venture, was formerly traffic manager at Major for TACA Airways. The ACTC offices are at the First State Building, 300 Park Avenue, New York.

Olympia 'Port' Returned'

Subsidized control assumed in 1943, Army commandants say that control turned over to the city commissioners of Olympia, Wash., 300 acres of the Olympia Airport originally owned by the city. All improvements made by the Army were included in the return of the property. The balance of 1,160 acres reverts to RFC as surplus property.

New Loading Plan Eases Cargo Task

Simplified aerial procedure uses three men to load bags, boxes in an hour; post-war use evident.

A cargo-handling plan that may give the airlines some pointers for their big post-war equipment has been worked out by the Naval Air Transport Service for the new 77-ton Martin Mars, which, it is claimed, can be loaded in an hour and unloaded in half an hour under the new system.

Attractive feature of the NATS plan is that it requires no costly equipment and only light work and manpower to a minimum. Basic features were developed by Lt. (j.g.) Douglas U. Beck, USNR, formerly with United Air Lines.

► **Pre-Packaged**—As described by the Glenn L. Martin Co., the key to the loading system is preliminary arrangement of the cargo. Except for special articles, such as fragile eggs or bulky items, handling of individual pieces has been done away with. Regular cargo is checked and separated at a dock

Cargo Conflict

American Airlines' ever-widening experiments in air cargo operations have had an echo in a CAB proceeding involving the airline and the FCC, which can approve of a decision holding a similar position with surface transport companies.

The Board expressed the role of Walter S. McLean, of Detroit, as a director of American, as well as President Alberto-Culver Co., and a director of Detroit and Cleveland Navigation Co., finding that the degree of conflict of interest is "indefensible."

► **Discrepancy**—In a dissenting opinion, however, Member John Lee referred to the majority's statement that the Pan American is presumably a freight carrier (as opposed to American's major income being drawn from passengers), and pointed out that the airline has recently initiated a program for the development of air freight traffic in volume. Accordingly, he saw a potential conflict of interest.

The majority opinion stressed that the conflict of interest over interlocking directorships is continuous and that, therefore, the McLean case could be re-examined in the future, if necessary.

REPEAT PERFORMANCE

On plane after plane, "young sons" line up beside "swallows" in the men and planes that helped smash the Nazis join the fight against Japan. * Swallows see the island-dotted open seas to the pilots who earned their "swallows" over the hedgerows and winding men of the European Continent.

* But familiar as the voice of an old friend is the unceasing running power of their Allison engines. Pilots learned half a world away that the name Allison means quality workmanship—and a reliable, dependable product.

KEEP AMERICA STRONG
BUY MORE WAR BONDS



POWERED BY ALLISON

P-38—Lightning
P-51—Mustang
F-84—Thunderjet
B-57 and P-51A—Mustang
P-61—Kanguro

More than 4,000 Allison engines have been built for the chief planes of the U.S. Army Air Forces.

LIQUID-COOLED AIRCRAFT ENGINES

Allison

Indiansapolis, Indiana



DIVISION OF

Every Sunday Afternoon—GENERAL MOTORS SYNDICATE OF THIS AD—ABC National

AVIATION NEWS • July 30, 1945

warehouse, then placed on rails so wooden crates which are marked copies of the cargo desks.

After the flats are loaded to maximum height, the net, specially itself so there will be no movement of the pieces it contains, is tightened by a series of stays. Then, the train is set a-tiptoe, destination, and a number corresponding to the flat. Thus and other information is listed on simple, single-arched forms.

Estimates are that two hours are sufficient to check 36,000 lbs. of cargo from trucks to flats, even if several thousand items are miscategorized.

► **Wing Hoist**—Mechanized "rudder" and trailers haul the rated cargo to the side of the ship. A hand truck into the wing picks the nets off the deck and swings them inside. Martin says three men, one outside and two in the plane, can load the entire cargo.

The cargo hoist does not extend to floor and ceiling compartments, but "low-wheeled crates," part of the plane's equipment, are used to move the cargo into the recessed and remote parts of the flying boat.

Transport offices at intermediate stations can tell by the standard-sized manifests what total weight off, weight through, and compartment weight reduction will amount to, and can thereby calculate plane balance and load allowable at the next station.

► **Cargo School**—Miss application of the system, which will increase capacity. Presently, aircraft carry each item along the route from the U. S. to the far Pacific, is being taught at an Air Transport School conducted by Martin.

PCA Earnings Point Way To High Year

The six months' earnings report of Pennsylvania-Central Airlines, indicates the industry will show substantial gains in operations.

PCA's operating revenues jumped from \$2,315,150 for the first six months last year to \$4,764,625 during the like period this year. Operating profit rose from \$121,776 to \$627,345, while net income increased from \$68,463 to \$411,349.

► **Plane Increase**—The company's average number of planes in operation in the 1945 six months was 18.1 compared with 7.6. Thus average plane miles jumped to 4,375,302 from 1,051,851, and revenue passenger miles to 73,661,714 from 31,312,382.

Insurance Policies Revamped For Growing Global Air Travel

New protection forms designed for both domestic and international trips; Associated Aviation Underwriters takes apparent "lead" in domestic coverage with Continental Casualty and U. S. Aviation Underwriters contesting foreign field.

Insurance companies this week laid the foundation for what is expected to be an ever-increasing volume of aviation travel coverage with new forms of insurance designed to take advantage of the expected increase in both domestic and international air travel.

In contrast to the revised trip insurance offered by the other two companies, U. S. Aviation is after business on an annual contract basis, with premiums of \$1.49 per thousand and coverage up to \$100,000. This is the same rate the group charges for travel on domestic air carriers.

► **Continental Casualty**—Previously, the group had a limit of \$22,000 on its individual "airurance" policies, and covered only passengers to the Western Hemisphere. Now, while the \$1.49 rate applies only to travel on U. S. flag airlines throughout the world, and to approved carriers in the Western Hemisphere, a rate of \$3.40 per thousand covers flights on any scheduled passenger airline, ATC, NATS and RAF Transport Command, even in combat zones.

In sum, the three new types of coverage are:

► **Associated Aviation Underwriters**—Trip insurance; 25 cents per \$5,000, good for one-way passages within seven days (former premium based on round trip); applicable to flights in U. S., 150 miles into Canada on TCA or U. S. airlines, and Hawaii; covers travel on ground is and from airport; sold at airline ticket counters.

► **Continental Casualty Co.**—Trip insurance; 25 cents per \$5,000 an fare of \$150, limit of coverage, \$25,000; applicable to flights anywhere, domestically or internationally, and on any airline, including ATC, NATS and RAFTC; ground coverage on approaches and to and from airport; reimbursement for medical expenses in amounts up to \$50 for each \$1,000 of coverage, sold at Pan American and American Export ticket offices.

► **United States Aviation Underwriters**—Annual policy insurance; \$1.49 per \$1,000, limit of coverage, \$100,000, applicable for flights anywhere in the world on Ameri-

cana. "The new policy is also of

Mechanix Illustrated is filled with the plane facts the fellows want



Month after month, there's an airplane on the cover of Mechanix Illustrated. It's there because the magazine is aviation-oriented. Mechanix Illustrated is filled with flying and facts for flyers. It's aimed at tomorrow's market that will buy and fly your peacetime planes. These enthusiasts, all over the country, arm themselves with the flying "know how" that Mechanix Illustrated brings them in stories like the one on Page 41 of the April, 1945 issue:

Stories like this go a long way toward helping put a plane in every pasture pasture. Mechanix Illustrated is building up wants for you to turn into sales.



For nearly 20 years, future flyers have been reading "The School Shop" in Mechanix Illustrated. [Here's the feature as it appeared in May, 1945.] It is designed to interest, guide, and teach the fellows who will be flying tomorrow. It's very popular.



The Magazine that Makes Plane Facts Exciting

Interest tomorrow's cloud-hoppers in your planes by talking their language in the magazine that interests them.... Mechanix Illustrated. It already carries more aviation advertising, for good reasons. Tell the boy what you are planning for them. Tell them what to expect. Mechanix Illustrated knows your market - it's talking flyers' language, as no other magazine talks. Remember, the sky's your limit - and you're reaching the fellows with their eyes on the skies, by using Mechanix Illustrated regularly.

FAWCETT PUBLICATIONS, INC., 295 Madison Ave., New York 17, N.Y., World's Largest Publishers of Monthly Magazines.

OPPORTUNITIES FOR ENGINEERS AND DRAFTSMEN

PROT & WHITING AIRPORTS is modernizing its facilities at the present time to meet strict field requirements and has immediate openings for Engineers and Draftsmen with the following experience: one year with an engineering company or one year in professional production work.

DEVELOPMENT ENGINEERS

Mechanical and Structural
Engineers (including
Structural Aerodynamics)

For engineering studies related to the design development and production of aircraft, it is a real team sport.

DESIGNERS

To make a profit Dodge offers you opportunities
to increase your income in your home.

DESIGN ANALYSIS AND CHECKERS

An engineer can set this kind of work up for
himself if he has the right training and the
knowledge to know what he is doing.
Designing, testing, selling, designing again.

DRIVERS

The practice of trucking is the right way to go.
Dodge offers many opportunities for drivers.
Driver's license not required.

EXPERIENCE WITH AIRCRAFT ENGINES DESIRABLE BUT NOT REQUIRED.

Affiliate letter to: Employment Department during
one month after receipt of resume and
classification.

PRATT & WHITNEY AIRCRAFT

Tom Herder, General Manager

Applaud all those who have joined our family.

Since 1920

• Many have been
building aircraft and
other aerospace products... today they still
and know how
makes it a preferred
source for military
airplane

civil-airline, and in the Western Hemisphere on any approved airline, rate of \$5.00 per \$1,000 for flights anywhere in world on any airline, and an ATC, NATS, and RAFT, and in combat zones, reimbursement for medical expenses of \$50.00 for each \$1,000 of expense, paid by group and its agents.

As Associated Aviators' new policy was arranged through ATA, it becomes practically the "official" airline policy. That company is expected, therefore, to be "superior" in the domestic field on trip insurance.

Internationally, Continental Airlines is to have been the first domestic company to enter the foreign field with an accident policy, started last year.

Experiments—American Air, U.S. Air Lines, and Pan American are experimenting in aviation underwriting, dating back to 1938, and a group of 62 companies with assets totaling more than two billion dollars.

New Planes Double Delta Air Schedule

Delta Air Lines' report for the first six months of 1945 indicates that return of aircraft from the Army and acquisitions from suppliers will more than double the number of passengers it carried last year. Delta already has 62 flights daily, compared with 16 in 1944.

Number of passengers carried in the first six months of this year was 10 percent higher than for the same period a year ago. The figures are 130,305 and 113,000. Heavy-air passenger totals increased 41 percent, from 37,000,483 to 49,587,113, mail-and-mailer jumps 22 percent from 265,633,006 to 310,307,453, express-pound-miles rose 34 percent from 162,976,000 to 246,287,057. Express pounds were up 23 percent.

Another DC-3—Flights were added gradually during this period as planes were returned by the Army. One more DC-3 is in the process of conversion and will be added to the Delta schedule within six weeks.

The line is now carrying a heavy part of the wastewater re-deployment traffic stemming from Seven-

ah and Charleston, its eastern terminals, where borders from the European theater are being landed.

Seattle-Tacoma Airport Near Use By Airlines

Already delayed one year by material shortages, Seattle-Tacoma Airport at Bell Lake, Wash., probably will be in active use by major airlines by this fall.

The first airline lease for use of the field has been signed by Pan American World Airways and similar leases were scheduled to be signed last Friday by Northwest and United Airlines.

L. C. Replogle, manager of Pan American's Pacific-Alaska Division, and his company will make the airport its major base for operations into Alaska.

The Bell Lake airport has been under construction for two years, and ultimately will replace Seattle's King County Airport (Boeing Field) as the Pacific Northwest's major air terminal and foreign port of entry.

CAB ACTION

July 31. Revising of American Alfred Oil Company's certificate of public convenience and necessity.

July 31. Authorizing conferences on Denver, San Jose, Denver-Dallas, Plus and Undivided All-Point System, and authorizing retention of original applications in the Denver office until Sept. 30.

Aug. 1. Waiving of filing fees for original applications in the Denver office until Sept. 30.

Aug. 1. Waiving of fee for flight tests, flight test reports and in Denver and Seattle.

Aug. 1. Further revision of Rocky Mountain Coast Route (Denver, Colo. to Los Angeles, Calif.)

Aug. 1. Waiver of charges on Chicago-New York route (United No. 410).

Aug. 1. Waiver of charges on Chicago-New York route (Continental Air Service, Inc. United No. 411).

Aug. 1. Waiver of fees for filing article by the Rocky Mountain route (United No. 412) on Aug. 1, 1945, and Aug. 21, 1945.

Sept. 1. Reduction of rates in Great Lakes area, including Chicago, Milwaukee, Detroit, Toledo, Cleveland, and the Great Lakes Area route (United No. 413).

Oct. 1. Increase in Great Lakes area service (United No. 414).

Oct. 1. Reduction of rates in the Middle Atlantic area (United No. 415).

Oct. 1. Reduction of rates in the Midwest area (United No. 416).

Dec. 1. Reducing options to 10 miles along main routes in the Midwest area (United No. 417).

Dec. 1. Reducing options to 10 miles along main routes in the Midwest area (United No. 418).

Dec. 1. Reducing options to 10 miles along main routes in the Midwest area (United No. 419).

CAB ACTION

The Civil Aeronautics Board

■ Granting of supplemental to Western Air Lines, Inc., for the purpose of adding two Boeing 747 aircraft to its fleet.

■ Awarding of operating rights of James Brown Air Services of American Airlines and Pan American World Airways to Pan American World Airways, Inc., for operation of the Boeing 747 aircraft.

■ Continued award of grants to Pan American World Airways, Inc., for operation of the Boeing 747 aircraft.

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CASTERS

Cargo Venture Uses *Conestoga*

A new company, organized by a group of ex-flying Tugers and headed by Robert Prentiss, formerly of Pan Am, has purchased from the Remond Aviation Corporation 14 multi-manufactured *Conestoga* planes and was to begin contract cargo, non-scheduled, operations east-to-west coast late this month.

Incorporated in Delaware at Newark, New Jersey, the company is expected to move its headquarters to Los Angeles. Organizers are six former Army and Navy pilots, most of whom flew with Gen. Chennault's famous American Volunteer Group in China.

Entire Output.—The 14 *Conestoga*s were sold for \$465,000, with an initial payment of \$90,000 and the balance due in one year. They constitute the entire stock of serviceable *Conestoga*s remaining in the country. At present, the company is in contact with the Rubber Development Corp., two are non-refundable and a fourth is at an ascertainable price because of how-power engines.

One of the most unusual aircraft experiments of the war, the

in September Transmitter-receiver ground stations are being installed on the highest hills on the route, but will not be available for station-to-station communication, which will be handled by telephone lines

AA Fare Reduction Attacked by PCA

American Airlines' proposal to cut air fares an average of 7½ percent has been sharply criticized by C. Rodell Monroe, president of Pennsylvania-Central Airlines. Urging a complete investigation and hearing, Monroe declared in a letter to the Civil Aeronautics Board, that American's move, added to previous fare reductions, will, if the board approves it, "be destructive to many companies in the industry and will tend to create a chaotic economic condition."

He termed AA's motion, which would bring about an average fare

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met at Juneau by an Alaska Airlines DC-3 for continued flight to Anchorage. Woodley Airlines makes the Juneau-Anchorage connection on the other three days. Daily service between Anchorage and Fairbanks is maintained by Alaska Airlines.

Both Pan American and Alaska Airlines mountain offices in Seattle, the latter serving also as a joint ticket office for Woodley Airlines

Faulty Engine Cited In Page Accident

Probable cause of an accident involving a Page Airport plane at Washington National Airport, which resulted in death to six passengers, was engine failure, and a subsequent emergency landing under adverse weather conditions, CAB held last week.

Failure of one of the two engines of the Lockheed Lodestar, the Board found, was due to a cracked valve spring washer which had been condemned by the manufacturer but not replaced by the Army, which formerly owned the plane.

Blown Duct.—Contributing to the seriousness of the accident, was the 15-foot-deep drainage ditch in which the plane burned last April.

The Board's findings were based as a hearing held in Washington before W. K. Andrews, chief of the investigation section.

Andrews also conducted a recent hearing at Las Vegas, N. C., on the mid-air collision of an Army A-26 bomber and an Eastern Air Lines DC-3 near Columbus, S. C., in which a child passenger was one of the transport's engine was sheared off and the propeller twisted through the cabin.

Blown Tire.—The bearing developed but the Army pilot was making a shallow turn and did not see the airline.

The Air Transport Association sees general steel-gauge reduction as the best solution of the problem. Airlines as a pretest to U. S. Metropolitan airlines who want to consolidate in Central and South America, England, and Continental Europe and elsewhere after the war.

Graduate Aeronautical Engineers
The 1945 meeting of the 20th annual Graduate Aeronautical Engineers Association, held recently in Pasadena, Calif., was opened by Dr. George E. Stoll, president of the University of Southern California.

For further details:
PO BOX 4400
NEW YORK 16, N.Y.



NAL'S 26-PASSENGER LODESTAR

Pictures above, exterior and interior of the Lockheed Lodestar converted by National Airlines to carry 26 passengers, plus crew of three, a Caribbean-Atlantic Airlines' route in Puerto Rico. National, which has applied to CAB for permission to convert one of Caribbean-Atlantic's removed the 16 regular seats and replaced them with upholstered benches along the side of the plane. Width to a passenger is 39 inches. Arm rests are at intervals and each seat has the usual safety belt.

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Lessons from German Research Policy

CONTRARY to the German's boast, investigating Committee of the delay of the Army Air Forces in delivering jet combat planes to the European war can be constructive only in so far as it helps to correct any fundamental deficiency in a complicated research, development and procurement system.

Both Britain and the U. S. were lagging behind Germany's jet and turbine developments. The U. S. trailed the British. In rockets and rocket bombs the Allies were hardly in the race at all. The armed forces' counter-argument of the military in this country is that those other advantages which we did possess won the German war. But some of our best scientists who have inspected German aviation and robot-rockets development return somewhat shaken. Their estimates of the additional time Germany would have required to threaten seriously our ability to beat her vary from weeks to a few months. Our relative technical leadership was deteriorating rapidly.

American scientists and other experts who have visited Germany seem convinced that a principal reason for German excellence in new aircraft development, for example, was the nation's attitude and support of scientific development.

The attitude an research direction which seems marked from that here, where emphasis is on production. In the Reich, invention and experimentation were nurtured liberally by a state agency that sought out and encouraged scientists with an ideal, gave them the means to work, and rewarded them well.

The German policy was not a Nazi innovation. It was ingrained in the German general staff and was operating years before the Nazis gained control. Experimentation that resulted in the V-2 rocket, for instance, is believed to have started as early as 1928.

The quest by technical observers for reasons of German leadership in aerodynamics lead them to these discoveries:

Excellent laboratories in scope and research areas well dispersed and interconnected.

Plenty equipment and sufficient for the research workers in these laboratories.

Economic, good pay, excellent living conditions for scientists.

Freedom from red tape such as cost accounting, enormous reports or inspections to prove progress or pledge results. Everything possible was done to relieve the scientist from distasteful and worry to enable him to concentrate on the job at hand.

To their amazement U. S. observers found scores of these laboratories built for special projects. Many were in the scenic Bavarian Alps. Some were in the Thuringian Forests. Others were in Sicily, resorts, along the Baltic shore, though frequent bombing of that area had driven most of them south to mountain lake areas for conducting underwater experiments.

In general charge of the German scientific pro-

grams was a Ministry of Research, a civilian agency. The Army did not dominate it. Neither did the Navy nor Luftwaffe. The armed services benefited, however, from the common pool of knowledge and information. So did commercial projects to the extent that the state considered such benefit to its interest.

The Ministry welcomed anyone with an idea, whether an engineer or an inventor of reputation, on the theory that sometimes crackpots chance upon a worth-while discovery. If one out of 10 made good, the investment was considered successful. This is in sharp contrast with reports that a Western aircraft manufacturer submitted a jet plane idea to the AAF five years ago and was promptly turned down, or that the brilliant young Hiller was told by Wright Field to finish his schooling before trying to get the AAF to help develop his new helicopter idea.

Such an agency existed in Germany in 1928 when experimentation was undertaken with official encouragement of a then described "half-baked" venture of flying a rocket to the moon. The scientist who had this idea sought aid from the government. It loaned him money which was given means to continue work on their idea. Some 20 years later the objective was modified from inter-planetary transportation to dispensing mail from Europe to America in a rocket-propelled mail. Thus, when the war was started, the basic principles of a rocket bomb were already well known by the Germans. Certain troublesome phases were assigned some of the meteorite and seafloor laboratory groups. It is said that a dozen of these units were still working on the project from time to time.

Finally, the results of these experiments and theories were assembled. Tests were made although interrupted frequently by bombing. Finally, the deadly V-2 was perfected, a ten missile flying at the speed of an artillery projectile to a height of 70 miles and occurring within 50 seconds of each other a range of over 60 miles. At the time the underground Nordhausen rocket plant was captured, the accuracy of the V-2 was such that from a distance up to 3,000 miles it could strike within a mile radius of any objective. That missile was ready for production when VE-Day came.

Despite the differences between the Fascist and democratic ways of life that research techniques, under direction of our most distinguished civilian scientists, would have much to offer those who have the responsibility of formulating a national scientific and research policy for the future. Certainly essential objectives other than the obvious ones of coordination and stability are freedom from military and naval control, a perpetual attitude of open mindedness, and sufficient incentive to attract not only the scientists who already have made reputations, but those yet to make their mark.

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